

110 343 44 110 343 44

7

SEQUENCE LISTING

<110> Spytek, Kimberly A
Li, Li
Wolenc, Adam R
Vernet, Corine
Eisen, Andrew J
Liu, Xiaohong
Malyankar, Uriel M
Shimkets, Richard A
Tchernev, Velizar
Spaderna, Steven K
Gorman, Linda
Kekuda, Ramesh
Patturajan, Meera
Gusev, Vladimir Y
Gangolli, Esha A
Guo, Xiaojia S
Shenoy, Suresh G
Rastelli, Luca
Casman, Stacie J
Boldog, Ferenc
Burgess, Catherine E
Edinger, Shlomit R
Ellerman, Karen
Gunther, Erik
Smithson, Glennnda
Millet, Isabelle
MacDougall, John R

<120> Proteins and Nucleic Acids Encoding Same

<130> 21402-230

<140> 10/038,854

<141> 2001-12-31

<150> 60/258,928

<151> 2000-12-29

<150> 60/259,415

<151> 2001-01-02

<150> 60/259,785

<151> 2001-01-04

<150> 60/269,814

<151> 2001-02-20

<150> 60/279,832

<151> 2001-03-29

<150> 60/279,833

<151> 2001-03-29

<150> 60/279,863

<151> 2001-03-29

<150> 60/283,889
<151> 2001-04-13

<150> 60/284,447
<151> 2001-04-18

<150> 60/286,683
<151> 2001-04-25

<150> 60/294,080
<151> 2001-05-29

<150> 60/312,915
<151> 2001-08-16

<150> 60/313,325
<151> 2001-08-17

<150> 60/322,699
<151> 2001-09-17

<160> 411

<170> PatentIn Ver. 2.1

```
<210> 1
<211> 1138
<212> DNA
<213> Homo sapiens
```

<400> 1						
gtccaaaatg	tggctgcttt	taacaacaac	ttgtttgatc	tgtggaactt	taaagtctgg	60
tggatttcct	gatttgga	atgaagtga	tcttgaggtg	tggatgaata	ctagtgaat	120
catcatctac	aatggctacc	ccagtgaaga	gtatgaagtc	accactgaag	atgggtatat	180
actccttgtc	aacagaattc	cttatgggcg	aacacatgct	aggagcacag	gtccccggcc	240
agtttgtgtat	atgcagcatg	ccctgtttgc	agacaatgcc	tactggcttg	agaattatgc	300
taatggaagc	cttggattcc	ttctagcaga	tgcaggttat	gatgatgga	tgggaaacag	360
tcggggaaac	acttggctca	gaagacacaa	aacactctca	gagacagatg	agaaattctg	420
ggcctttggg	tttgatgaaa	tggccaaata	tgatctccca	ggagtaatag	acttcattgt	480
aaataaaaact	ggtcaggaga	aattgtat	cattggacat	tcacttggca	ctacaatagg	540
gtttgtagcc	ttttccacca	tgcctgaact	ggcacaaaga	atcaaaatga	attttgcctt	600
gggtcctacg	atctcattca	aatatcccac	gggcattttt	accagggtttt	ttctacttcc	660
aaattccata	atcaaggctg	tttttggtac	caaagggtttc	tttttagaag	ataagaaaac	720
gaagatagct	tctaccaaaa	tctgcaacaa	taagatactc	tggttgat	gtagcgaatt	780
tatgtcctta	tgggctggat	ccaacaagaa	aaatatgaat	cagctttacc	actctgatga	840
attcagagct	tatgactggg	gaaatgacgc	tgataatatg	aaacattaca	atcagagtca	900
tccccctata	tatgacctga	ctgccatgaa	agtgccctact	gctatttggg	ctgggtggaca	960
tcatgtcctc	gtaacacccc	aggatgtggc	caggatactc	cctcaaataca	agagtcttca	1020
ttacttttaag	ctattgccag	attggaacca	ctttgatttt	gtctggggcc	tcgatgcccc	1080
tcaacgggatg	tacagtga	tcatagcttt	aatgaaggca	tattcctaaa	tgcaatgc	1138

```
<210> 2
<211> 373
<212> PRT
<213> Homo sapiens
```


<400> 2

Met	Trp	Leu	Leu	Leu	Thr	Thr	Thr	Cys	Leu	Ile	Cys	Gly	Thr	Leu	Asn
1				5					10					15	
Ala	Gly	Gly	Phe	Leu	Asp	Leu	Glu	Asn	Glu	Val	Asn	Pro	Glu	Val	Trp
			20					25					30		
Met	Asn	Thr	Ser	Glu	Ile	Ile	Ile	Tyr	Asn	Gly	Tyr	Pro	Ser	Glu	Glu
	35						40					45			
Tyr	Glu	Val	Thr	Thr	Glu	Asp	Gly	Tyr	Ile	Leu	Leu	Val	Asn	Arg	Ile
	50					55					60				
Pro	Tyr	Gly	Arg	Thr	His	Ala	Arg	Ser	Thr	Gly	Pro	Arg	Pro	Val	Val
65					70					75					80
Tyr	Met	Gln	His	Ala	Leu	Phe	Ala	Asp	Asn	Ala	Tyr	Trp	Leu	Glu	Asn
				85					90					95	
Tyr	Ala	Asn	Gly	Ser	Leu	Gly	Phe	Leu	Leu	Ala	Asp	Ala	Gly	Tyr	Asp
			100					105					110		
Val	Trp	Met	Gly	Asn	Ser	Arg	Gly	Asn	Thr	Trp	Ser	Arg	Arg	His	Lys
		115					120					125			
Thr	Leu	Ser	Glu	Thr	Asp	Glu	Lys	Phe	Trp	Ala	Phe	Gly	Phe	Asp	Glu
	130					135					140				
Met	Ala	Lys	Tyr	Asp	Leu	Pro	Gly	Val	Ile	Asp	Phe	Ile	Val	Asn	Lys
145					150					155					160
Thr	Gly	Gln	Glu	Lys	Leu	Tyr	Phe	Ile	Gly	His	Ser	Leu	Gly	Thr	Thr
			165						170					175	
Ile	Gly	Phe	Val	Ala	Phe	Ser	Thr	Met	Pro	Glu	Leu	Ala	Gln	Arg	Ile
			180					185					190		
Lys	Met	Asn	Phe	Ala	Leu	Gly	Pro	Thr	Ile	Ser	Phe	Lys	Tyr	Pro	Thr
		195					200					205			
Gly	Ile	Phe	Thr	Arg	Phe	Phe	Leu	Leu	Pro	Asn	Ser	Ile	Ile	Lys	Ala
	210					215					220				
Val	Phe	Gly	Thr	Lys	Gly	Phe	Phe	Leu	Glu	Asp	Lys	Lys	Thr	Lys	Ile
225					230					235					240
Ala	Ser	Thr	Lys	Ile	Cys	Asn	Asn	Lys	Ile	Leu	Trp	Leu	Ile	Cys	Ser
				245					250					255	
Glu	Phe	Met	Ser	Leu	Trp	Ala	Gly	Ser	Asn	Lys	Lys	Asn	Met	Asn	Gln
			260					265					270		
Leu	Tyr	His	Ser	Asp	Glu	Phe	Arg	Ala	Tyr	Asp	Trp	Gly	Asn	Asp	Ala
		275					280					285			
Asp	Asn	Met	Lys	His	Tyr	Asn	Gln	Ser	His	Pro	Pro	Ile	Tyr	Asp	Leu

gaaaatgctc	cettgggtca	ctcagtcate	cacattcagg	cagtcgatgc	agaccatggg	2040
gagaatgcc	gattggagta	ctccctaact	ggtgtggcac	ctgatactcc	ttttgtgata	2100
aacagcgcca	ctggctgggt	ctctgtgagt	ggtccctgg	accgtgagtc	tgtggagcat	2160
tacttctttg	gtgtggaggc	tcgagacccat	ggctcaccoc	cactctctgc	ctcagccagt	2220
gtcacgtga	ctgtgctgga	cgtaaatgac	aatcggcctg	agttcacaa	gaaggagtac	2280
cacctacgac	tgaatgagga	tgcagctgtg	ggcaccagtg	tggtcagcgt	gaccgcagta	2340
gaccgtgatg	ccaacagtgc	catcagctac	agatcacag	gcggcaacac	cgggaatcgc	2400
tttqccatca	gcacccaggg	gggtgtgggt	ctqgtgactc	tqgtctgccc	actqgactac	2460
aagcaggaac	gtactttcaa	gctgggtacta	actgcatctg	accgtgccc	tcattgatcac	2520
tqctatqtgc	acatcaacat	cacagatccc	aqactcctc	ggccggtctt	tcaaaqtccc	2580
cactactcag	tgagtgtgaa	tgaagatcgg	ccaatgggta	gcaccatagt	ggtcattcagt	2640
gcctctgatg	atgacgtggg	tgagaatgct	cgtatcacct	atctcctgga	ggacaacctg	2700
cccagttcc	gactcagga	agactcagga	gccattacat	tacaggcccc	attagactat	2760
gaggaccagg	tgacctacac	cctggctatc	acagctcggg	acaatggcat	cccacagaag	2820
gcagacacta	cttatgtgga	ggtgatgggt	aatgacgtga	atgacaatgc	tccacaattt	2880
gtggcctccc	actatacagg	gctgggtctct	gaggatgccc	cacctttcac	cagtgtcctg	2940
cagatctcag	ccactgaccg	ggatgctcat	gccaatggcc	gggtccagta	cactttccag	3000
aatggtgaag	atggggatgg	agattttacc	attgagccca	cctctggaat	tgtccgtaca	3060
gtaaggcggc	tagaccggga	ggcagtatca	gtgtatgagt	tgactgccta	cgcagtggac	3120
agaggtgtgc	ccccactccg	gactccagtc	agtatccagg	tgatgggtga	ggatgtgaac	3180
gacaatgcac	ctgtcttccc	agctgaggag	tttgagggtg	gggtgaaaga	gaatagcatt	3240
gtgggctcag	tgggtggccca	gatcactgca	gtggaccctg	acgaaggccc	caatgccc	3300
ataatgtacc	agatcgtgga	ggggaacatc	cctgagctgt	tccaaatgga	catcttctct	3360
ggagaactga	cggcactcat	tgacctagac	tatgaggctc	gccaagaata	tgtgattgtg	3420
gtgcaggcca	catctgctcc	tttggtcagc	cgggcccactg	tgcacgtccg	cctgggtgac	3480
cagaatgaca	acagccctgt	gtcaacaac	ttccagatcc	tcttcaacaa	ctatgtatcc	3540
aaccgttcag	acaccttccc	gtcgggcatt	attgggcgca	tcccagctta	tgaccccgat	3600
gtctccgacc	acctcttcta	ctcctttgag	cgtggcaatg	agctgcagct	gctggtagtc	3660
aaccagacca	gtggggagct	gcgactcagc	cgaagctag	acaataaccg	cccactgggtg	3720
gcctccatgt	tgggtgactgt	cacagatggc	ctgcacagcg	tgacggcgca	gtgtgtgctg	3780
cgcgtgggtca	tcattcacgga	ggagtgtctg	gccaacagcc	tgaccgtgcg	ccttgagaac	3840
atgtggcagg	agcgttccct	gtcaccgctg	ctgggcccgt	tccctcaggg	cgtggctgcg	3900
gtgctcgcta	cgcctcgtga	ggacgtcttc	atcttcaaca	tccagaacga	cacagacgta	3960
gggggcaccg	tgctcaatcg	gagtttctcg	gcgttagctc	cacgtggggc	cggggcgggc	4020
gctgcagggc	cctggttcag	ctccgaggag	ctgcaggagc	agttgtacgt	gcgcggggcg	4080
gcgctggcgg	ctcgtctccct	gctcgacgta	ctgcccctcg	acgacaacgt	gtgcctgcga	4140
gagccctgtg	agaactacat	gaaatgcgtg	tccgtgctcc	gctttgactc	gtccgcgccc	4200
ttcctggcct	cggcctccac	gctgttccga	cccatccagc	ccatcgtgg	cctgcgctgc	4260
cgtgcccgc	cgggattcac	gggagacttt	tgcgagaccg	agctcgacct	ctgctactcc	4320
aacccatgtc	gcaacggcgg	agcctgcgcg	cggcgcgagg	gaggctacac	gtgcgtctgc	4380
cgcctcgcgt	tcaccggaga	ggactgcgag	ctggacaccg	aggccggccg	ctgcgtgccg	4440
ggcgtctgcc	gcaacggggg	cacctgcacc	gacgcgccc	acggcggtct	tcgctgccag	4500
tgcccggcag	gcggcgccct	caggggcccg	cgtgcgagg	tggctgcgcg	ctccttcccg	4560
cccagttcgt	tcgtcatgtt	tcgcggccctg	cggcagcgat	tccaccttac	gctgtccctc	4620
tcgttcgcga	cagtgcagca	gagcgggctg	ctcttctaca	acgggcgcct	gaacgagaag	4680
cacgacttcc	tggccctgga	actcgtggct	ggccaagtgc	ggctcacata	ttccacgggt	4740
gaatccaaca	ccgtggtcag	ccccacagtt	ccagggggct	tgagtgcagg	gcaatggcat	4800
acagtgcate	tgagatacta	caacaagccc	cggacagatg	ccctaggggg	tgacacgggc	4860
ccctccaagg	acaagggtgg	tgtgctaagg	gtgcatgatt	gtgatgtggc	cgtggctctg	4920
cagtttgggtg	ctgagattgg	caactactca	tgcgcggctg	ctggtgtgca	aacaagctcc	4980
aagaagtccc	tggacctgac	gggcccctctt	cttctgggag	gtgtcccaa	cctccccgag	5040
aacttccccg	tatcccataa	ggacttcate	ggctgtatgc	gggacctgca	cattgatggc	5100
cgcggagtgg	acatggcggc	ttttgtcgca	aataatggca	ccatggcagg	ctgccaaagg	5160
aagctacact	tttgtgactc	aggcccctgc	aagaacagtg	gcttctgctc	ggagcgtgg	5220
ggcagcttca	gctgcgactg	ccctgtgggc	ttcgggggca	aagactgtca	gcttactatg	5280
gcccateccc	accatttccg	tggcaacggc	acactgagct	ggaactttgg	aagtgcacatg	5340
gctgtgtctg	tgccatggta	cctggggctg	gcatttcgga	cacgggcaac	gcaggggggc	5400

ctgatgcaag	tgcaggetgg	gccacacagc	acgtctcttt	gccagctaga	tccgggggta	5460
ctgtctgtga	cagtgaccag	gggctcgggc	cgtgcttccc	atctctctct	ggaccagggtg	5520
actgtcagtg	atggccgggtg	gcacgatctg	cggctggagt	tgcaggagga	accagggtggc	5580
cggcgggggcc	accatgtcct	tatgggtctca	ctggacttta	gcctcttcca	ggacaccatg	5640
gcggtgggga	gtgagctgca	gggcttgaag	gtaaagcagc	tccactgtgg	aggcctgccc	5700
cccggcagtg	cagagagggc	tccctcaggtg	ctgggtgggt	gcateccagg	gggtgtggctc	5760
gcgtccacac	cctctggctc	cccgcccgctg	ctacccccca	gccaccaggt	gaatgcggag	5820
cctgqctgtg	ttgtgaccaa	cgctctgtcc	tctgqgccc	gccacctca	cgaqactgc	5880
cgggacctct	ggcagacctt	ttcttgcaac	tgcacgccag	gttactacgg	cccaggctgt	5940
qtqatgctt	gcctcctgaa	cccctgtcaq	aaccaggqat	catgccqcca	cctgccagga	6000
gccccccatg	gctataacctg	tgactgtgtg	gggtggctatt	tccggcacca	ctgtgagcac	6060
aggatggacc	agcagtgccc	acggggctgg	tggggggagcc	caacctgtgg	cccttgcaac	6120
tgtgatgttc	acaaagggtt	tgatcccaac	tgcacaacaa	caaattgggca	gtgtcactgc	6180
acaggagtcc	actaccagacc	gcggggcgagt	gactcttgcc	tcccatgtga	ctgtacctc	6240
gtgggctcca	cctcgcgctc	atgtgcaccc	cacagcgggc	agtccccctg	tgcgccagga	6300
gcccttggcc	gccagtgcaa	cagctgtgac	agtcctctcg	cagagggtgac	agccagcggc	6360
tgcggggtgc	tctatgatgc	ctgcctaag	tccctgagat	ctggtgtgtg	gtggccccag	6420
acaaagtttg	gcgtcctggc	cacagtgcgc	tgtccccggg	gggcccctgg	tgtgtctgtg	6480
cggctgtgtg	atgaggccca	gggttggctg	gagcccgacc	tcttcaactg	tacctccct	6540
gcctttcgag	agctcagctc	gctgtggat	ggcctagagc	tgaacaagac	ggcactggat	6600
accatggagg	ccaagaagct	ggctcagcgg	ctacgggagg	tgactggcca	cactgaccac	6660
tatttttagcc	aagatgttcg	agtcactgcc	cgctgtctgg	cccactgtct	ggccttcgag	6720
agccatcagc	agggtctcgg	gctgacagcc	acacaggatg	ccacttcaa	tgagaatctg	6780
ctgtgggccc	gctctgcact	gcttgcccca	gagacagggg	acttgtgggc	ggcgctgggg	6840
cagcggggccc	ctggggggctc	cccaggcagc	gcgggactgg	tgaggcacct	ggaggagtat	6900
gcagccacac	tgcgaaggaa	tatggaaact	acatacctga	atcccatggg	gctgggtgacg	6960
cctaataatca	tgtctcagcat	tgaccgcctg	gagcacccca	gttctctccc	ggggggcccg	7020
cgtcaccttc	gctaccatag	caacctcttt	cagggccagg	atgctctggga	tctcacacc	7080
catgtgctgc	tgccttccca	gtcccccagg	ccatcccct	ctgaagtctt	gccacaagc	7140
agcagcatag	aaaactccac	caectcaagt	gtgggtcccc	caccagcccc	gccagagcca	7200
gagcctggga	tctccattat	cattctcttc	gtttaccgca	ccttaggggg	actgctccct	7260
gccagttcc	aggcagaacg	ccgagggtgc	aggcttcttc	agaaccccgt	catgaactcc	7320
ccggtgggtca	gcgtggctgt	gttccacaga	cgcaactctc	taaggggaat	cctggagtcc	7380
cccatcagcc	tagagtttcg	ctcgtctcga	acagcgaatc	ggagcaagcc	gatctgtgtg	7440
cagtggggacc	cacctggcct	ggcgaggcag	catggtgtgt	ggacagcacg	ggactgcgag	7500
ctggtgcaca	ggaatgggtc	ccacgcacgg	tgtcgtgtga	gccggacagg	gacctttggg	7560
gtcctcatgg	atgcctctcc	ccgtgagagg	ctggagggcg	acctggagct	gctggctgtg	7620
ttacccacag	tggtcgtggc	tgtgtctgtg	gctgcgctgg	tgtgactgc	agccatcctg	7680
ctgagcctgc	gcagcctcaa	gtccaatgtg	cgtgggatcc	atgccaatgt	ggcagccgcc	7740
ctgggggggtg	cagagctcct	cttctctgtg	gggattcaca	ggacccacaa	tcagggtgca	7800
gagcagggcc	aggggaactg	tgtctgtatg	acctactagg	cccaggagcc	ctggggccaa	7860
aactcagggt	cagagctggt	gtgcactgca	gtcgccatcc	tccgtgacta	cttctctctc	7920
agcaccttcg	cgtggctctt	cgtgcagggg	ctgcacctct	accgcctgca	ggttgagcca	7980
cgcaacgtgg	accgcggcgc	catgcgcttc	taccatgcc	tgggctgggg	cgctcctgct	8040
gtgtgtctgg	gccttgtgtg	gggcctggac	cctgagggct	atgggaacct	tgacttctgc	8100
tggatctcag	tccacgagcc	cctcatctgg	agctttgtgt	gcctgttgt	cctggtcata	8160
gtgatgaacg	ggacctatgt	tctcctcgct	gcccgcacat	cctgtctccac	agggcagaggt	8220
gagggccaag	agacctctgc	actcaggacc	cttcgcagct	cttctctgt	gcttctgctg	8280
ctcagtgctt	cctggctctt	tgggctcctg	cgactcaacc	acagcatcct	agccttccac	8340
tacctccatg	ctggactctg	cggcctccag	ggcctggcgg	tgtgtgtgt	ctctgtgtgc	8400
ctaaatgcag	atgtctgggg	tgcctggatg	ccagcctgtc	tgggcaggaa	ggcagcgctt	8460
gaggaggcaa	ggccagcacc	tgggctggga	cctggggcct	acaacaacac	ggctctcttt	8520
gaggagagtg	gcctcatccg	catcactctg	ggcgctccca	ccgtctcctc	tgtgagcagt	8580
gcccgtccg	gcgggaccca	ggaccagggt	agccagcggg	gccgcagcta	cctcagggag	8640
aatgtcctgg	tgcacatgg	ctcagcgct	gaccacactg	accacagcct	ccaggctcat	8700
gctggcccca	ctgacctgga	cgtggccatg	tccatcgag	atgctggcgc	agactccgac	8760
tctgacagtg	acctgtcctt	ggaggaggag	aggagtctct	ccattccatc	ttcagaaaag	

gaggacaatg	gocggagcgcg	ggggcgcttc	caacggccac	tctgcccagc	agcccagagt	8880
gagaggctcc	tcacccaccc	caaagatgtg	gatggcaatg	acctcctgtc	ctactggcca	8940
gccctggggg	agtgcgaggc	agccccctgt	gctctgcaga	cttggggctc	tgaaaggcgc	9000
ctggggctgg	acaccagcaa	ggatgcagct	aacaacaacc	agccagaccc	ggccctgacc	9060
agtgggggatg	agactttctct	gggcccgggc	cagcgccaga	ggaaaggcat	cctgaagaac	9120
cggttgcaat	accacttggg	gccacagacc	cgaggtgccc	ctgagctgtc	ctgggtgccgt	9180
gcagccacct	tggggccaccg	tgcajtgcca	gctgectctt	acggctcgcat	ctatgctggc	9240
qggggcacqg	qcaqcccttc	acaqccaqcc	agccqctact	cttctaqaqa	acaqctqqac	9300
ctgctectcc	ggcggcaact	gagccgtgag	cgactagagg	aagccccctgc	ccctgttcta	9360
cqtccccctqa	gccggcccagg	gtcccacqaa	tqcatggatq	ctgcaccaaq	ccqactqqag	9420
cccaaagatc	ggggcgagcac	cctgccacgg	aggcagccac	ctcgggacta	ccctggcgcc	9480
atggctggcc	gcttcgggtc	acgggatgcg	ctcgacttag	gggcacctcg	agagtgggtg	9540
agcacgctgc	ctccgccccg	ccgcacccgg	gaccttgacc	cacagccccc	acctctgccc	9600
ctgtctcccc	agcggcaact	ctcaaggagc	ccccctcttg	catcccggcc	gctggactct	9660
ctgtctagga	gctcgaactc	tcgggagcag	ctggaccagg	tgccatagccg	gcacccctca	9720
cgagaagccc	ttggggccact	cccgagctg	ctcagagcta	gggaggactc	ggtcagtggc	9780
cccagcctac	gcccctccac	agaacagttg	gacattcttt	cctccatcct	tgctcttttc	9840
aactcctcgg	ccctctctct	tgtgcaatct	tcaagcacac	ccttggggccc	tcacaccact	9900
gccacacctt	ctgccacagc	ctctgtgctt	gggcccctcca	cgccacgttc	tgccacgtct	9960
cacagcatct	cggagctgtc	gccagactca	gaaccgaggg	acacacaggc	actgctgtct	10020
gcaacacaag	caatggacct	gcggaggcga	gactaccaca	tggaaaggcc	gctgctgaac	10080
caggagcatt	tggaggagct	ggggcgctgg	ggctcagcac	ctaggaccca	ccagtggcgg	10140
acctggttgc	agtgtctccg	tgctcgggcc	tatgcccctc	tgctccaaca	cctcccgggt	10200
ttggctctgg	taccccggtg	tcctgtgcgt	gactggctcc	tgggtgacct	gttatccggc	10260
ctgagtgtgg	ccatcatgca	gcttccgcag	ggcttggcct	acgcccctct	ggctggattg	10320
cccccgctgt	ttggcctcta	tagctccttc	tacctgtct	tcactacttt	cctgtttggc	10380
acttcccggc	acatctccgt	ggagagcctc	tgtgtcccgg	gaccagtaga	cacagggacc	10440
tttgcctgca	tgtctgtgat	ggtgggcagt	gtgacagaat	ccctggcccc	gcaggccttg	10500
aacgactcca	tgatcaatga	gacagccaga	gatgctgccc	gggtacaggt	ggcctccaca	10560
ctcagtgctc	tggttggcct	cttccaggtg	gggctggggc	tgatccactt	cggcttcctg	10620
gtcacctace	tgtcagaacc	tcttgtccga	ggctatacca	cagctgcagc	tggtgcaggc	10680
ttcgtctcac	agctcaagta	tgtgtttggc	ctccatctga	gcagccactc	tggggccactg	10740
tccctcatct	atacagtgtc	ggaggtctgc	tggaaagctg	cccagagcaa	ggttggcacc	10800
gtgggtcactg	cagctgtggc	tggggtgggt	ctcgtggtgg	tgaagctgtt	gaatgacaag	10860
ctgcagcagc	agctgcccct	gccgataccc	ggggagctgc	tcacgctcat	cggggccaca	10920
ggcatctcct	atggcatggg	tctaaagcac	agatttgagg	tagatgtcgt	gggcaacatc	10980
cctgcagggc	tggtgcccc	agtggccccc	aacacccagc	tggtctcaaa	gctcgtgggc	11040
agccctttca	ccatcgctgt	ggttgggttt	gccattgcca	tctcactggg	gaagatcttc	11100
gcccctgagg	acggctaccc	ggtggacagc	aaccaggagc	tgggtggccct	gggcctcagt	11160
aaccttatcg	gagggcatct	ccagtgcctc	cccgtaggtt	gctctatgtc	tcggagcctg	11220
gtacaggaga	gcaccggggg	caactcgcag	ggtgctggag	ccatctcttc	ccttttcatc	11280
ctcctcatca	ttgtcaaaact	tggggaactc	ttccatgacc	tgcccaaggc	ggtcctggca	11340
gccatcatca	ttgtgaacct	gaagggcatg	ctgaggcagc	tcagcgacat	gcgctccctc	11400
tggaaaggcca	atcgggcgga	tctgcttata	tggtggtgga	ccttcacggc	caccatcttg	11460
ctgaacctgg	accttggctt	ggtggttgcg	gtcatcttct	ccctgctgct	cgtgggtggc	11520
cggacacaga	tgccccacta	ctctgtcctg	gggcaggtgc	cagacacgga	tatttacaga	11580
gatgtggcag	agtactcaga	ggccaaggaa	gtccgggggg	tgaaggtctt	ccgctcctcg	11640
gccaccgtgt	actttgcca	tgtgagttc	tacagtgatg	cgctgaagca	gaggtgtggg	11700
gtggatgtcg	acttctcat	ctcccagaag	aagaaactgc	tcaagaagca	ggagcagctg	11760
aagctgaagc	aactgcagaa	agaggagaag	cttcggaaac	aggcagggcc	ccttttgtct	11820
gcattgtctg	ctccccagca	ggtgagctca	ggagataaga	tggaaagatg	aacagccaat	11880
ggtaagaag	actccaaggc	cccagatggg	tccacactga	aggccctggg	cctgcctcag	11940
ccagacttcc	acagcctcat	cctggacctg	ggtgcccctc	cctttgtgga	cactgtgtgc	12000
ctcaagagcc	tgaagaatat	ttcccatgac	ttccggggaga	ttgaggtgga	ggtgtacatg	12060
gcggcctgcc	acagccctgt	ggtcagccag	cttgaggtgc	ggcacttctt	cgatgcaccc	12120
atcacciaaga	agcatctctt	tgctctgtgc	catgatgctg	tcacctttgc	cctccaacac	12180
ccgaggcctg	tccccgacag	ccctgtttcg	ccctcactcg	ctgtctcctc	agatgtgaaa	12240

Ser Gly Ser Ala Pro Arg Glu Ser Arg Thr Ala Pro Glu Pro Ala Pro
260 265 270

Lys Arg Met Arg Ser Arg Gly Leu Phe Arg Cys Arg Phe Leu Pro Gln
275 280 285

Arg Pro Gly Pro Arg Pro Pro Gly Leu Pro Ala Arg Pro Glu Ala Arg
290 295 300

Lys Val Thr Ser Ala Asn Arg Ala Arg Phe Arg Arg Ala Ala Asn Arg
305 310 315 320

His Pro Gln Phe Pro Gln Tyr Asn Tyr Gln Thr Leu Val Pro Glu Asn
325 330 335

Glu Ala Ala Gly Thr Ala Val Leu Arg Val Val Ala Gln Asp Pro Asp
340 345 350

Ala Gly Glu Ala Gly Arg Leu Val Tyr Ser Leu Ala Ala Leu Met Asn
355 360 365

Ser Arg Ser Leu Glu Leu Phe Ser Ile Asp Pro Gln Ser Gly Leu Ile
370 375 380

Arg Thr Ala Ala Ala Leu Asp Arg Glu Ser Met Glu Arg His Tyr Leu
385 390 395 400

Arg Val Thr Ala Gln Asp His Gly Ser Pro Arg Leu Ser Ala Thr Thr
405 410 415

Met Val Ala Val Thr Val Ala Asp Arg Asn Asp His Ser Pro Val Phe
420 425 430

Glu Gln Ala Gln Tyr Arg Glu Thr Leu Arg Glu Asn Val Glu Glu Gly
435 440 445

Tyr Pro Ile Leu Gln Leu Arg Ala Thr Asp Gly Asp Ala Pro Pro Asn
450 455 460

Ala Asn Leu Arg Tyr Arg Phe Val Gly Pro Pro Ala Ala Arg Ala Ala
465 470 475 480

Ala Ala Ala Ala Phe Glu Ile Asp Pro Arg Ser Gly Leu Ile Ser Thr
485 490 495

Ser Gly Arg Val Asp Arg Glu His Met Glu Ser Tyr Glu Leu Val Val
500 505 510

Glu Ala Ser Asp Gln Gly Gln Glu Pro Gly Pro Arg Ser Ala Thr Val
515 520 525

Arg Val His Ile Thr Val Leu Asp Glu Asn Asp Asn Ala Pro Gln Phe
530 535 540

Ser Glu Lys Arg Tyr Val Ala Gln Val Arg Glu Asp Val Arg Pro His
545 550 555 560

Thr	Val	Val	Leu	Arg	Val	Thr	Ala	Thr	Asp	Arg	Asp	Lys	Asp	Ala	Asn
				565					570					575	
Gly	Leu	Val	His	Tyr	Asn	Ile	Ile	Ser	Gly	Asn	Ser	Arg	Gly	His	Phe
			580					585					590		
Ala	Ile	Asp	Ser	Leu	Thr	Gly	Glu	Ile	Gln	Val	Val	Ala	Pro	Leu	Asp
		595					600					605			
Phe	Glu	Ala	Glu	Arg	Glu	Tyr	Ala	Leu	Arg	Ile	Arg	Ala	Gln	Asp	Ala
	610					615					620				
Gly	Arg	Pro	Pro	Leu	Ser	Asn	Asn	Thr	Gly	Leu	Ala	Ser	Ile	Gln	Val
625					630					635					640
Val	Asp	Ile	Asn	Asp	His	Ile	Pro	Ile	Phe	Val	Ser	Thr	Pro	Phe	Gln
				645					650					655	
Val	Ser	Val	Leu	Glu	Asn	Ala	Pro	Leu	Gly	His	Ser	Val	Ile	His	Ile
			660					665					670		
Gln	Ala	Val	Asp	Ala	Asp	His	Gly	Glu	Asn	Ala	Arg	Leu	Glu	Tyr	Ser
		675					680					685			
Leu	Thr	Gly	Val	Ala	Pro	Asp	Thr	Pro	Phe	Val	Ile	Asn	Ser	Ala	Thr
	690					695					700				
Gly	Trp	Val	Ser	Val	Ser	Gly	Pro	Leu	Asp	Arg	Glu	Ser	Val	Glu	His
705					710					715					720
Tyr	Phe	Phe	Gly	Val	Glu	Ala	Arg	Asp	His	Gly	Ser	Pro	Pro	Leu	Ser
				725					730					735	
Ala	Ser	Ala	Ser	Val	Thr	Val	Thr	Val	Leu	Asp	Val	Asn	Asp	Asn	Arg
			740					745					750		
Pro	Glu	Phe	Thr	Met	Lys	Glu	Tyr	His	Leu	Arg	Leu	Asn	Glu	Asp	Ala
		755					760					765			
Ala	Val	Gly	Thr	Ser	Val	Val	Ser	Val	Thr	Ala	Val	Asp	Arg	Asp	Ala
						775					780				
Asn	Ser	Ala	Ile	Ser	Tyr	Gln	Ile	Thr	Gly	Gly	Asn	Thr	Arg	Asn	Arg
785					790					795					800
Phe	Ala	Ile	Ser	Thr	Gln	Gly	Gly	Val	Gly	Leu	Val	Thr	Leu	Ala	Leu
				805					810					815	
Pro	Leu	Asp	Tyr	Lys	Gln	Glu	Arg	Tyr	Phe	Lys	Leu	Val	Leu	Thr	Ala
			820					825					830		
Ser	Asp	Arg	Ala	Leu	His	Asp	His	Cys	Tyr	Val	His	Ile	Asn	Ile	Thr
		835					840					845			
Asp	Ala	Asn	Thr	His	Arg	Pro	Val	Phe	Gln	Ser	Ala	His	Tyr	Ser	Val
	850					855					860				

Asn Asn Phe Gln Ile Leu Phe Asn Asn Tyr Val Ser Asn Arg Ser Asp
 1170 1175 1180
 Thr Phe Pro Ser Gly Ile Ile Gly Arg Ile Pro Ala Tyr Asp Pro Asp
 1185 1190 1195 1200
 Val Ser Asp His Leu Phe Tyr Ser Phe Glu Arg Gly Asn Glu Leu Gln
 1205 1210 1215
 Leu Leu Val Val Asn Gln Thr Ser Gly Glu Leu Arg Leu Ser Arg Lys
 1220 1225 1230
 Leu Asp Asn Asn Arg Pro Leu Val Ala Ser Met Leu Val Thr Val Thr
 1235 1240 1245
 Asp Gly Leu His Ser Val Thr Ala Gln Cys Val Leu Arg Val Val Ile
 1250 1255 1260
 Ile Thr Glu Glu Leu Leu Ala Asn Ser Leu Thr Val Arg Leu Glu Asn
 1265 1270 1275 1280
 Met Trp Gln Glu Arg Phe Leu Ser Pro Leu Leu Gly Arg Phe Leu Glu
 1285 1290 1295
 Gly Val Ala Ala Val Leu Ala Thr Pro Ala Glu Asp Val Phe Ile Phe
 1300 1305 1310
 Asn Ile Gln Asn Asp Thr Asp Val Gly Gly Thr Val Leu Asn Val Ser
 1315 1320 1325
 Phe Ser Ala Leu Ala Pro Arg Gly Ala Gly Ala Gly Ala Ala Gly Pro
 1330 1335 1340
 Trp Phe Ser Ser Glu Glu Leu Gln Glu Gln Leu Tyr Val Arg Arg Ala
 1345 1350 1355 1360
 Ala Leu Ala Ala Arg Ser Leu Leu Asp Val Leu Pro Phe Asp Asp Asn
 1365 1370 1375
 Val Cys Leu Arg Glu Pro Cys Glu Asn Tyr Met Lys Cys Val Ser Val
 1380 1385 1390
 Leu Arg Phe Asp Ser Ser Ala Pro Phe Leu Ala Ser Ala Ser Thr Leu
 1395 1400 1405
 Phe Arg Pro Ile Gln Pro Ile Ala Gly Leu Arg Cys Arg Cys Pro Pro
 1410 1415 1420
 Gly Phe Thr Gly Asp Phe Cys Glu Thr Glu Leu Asp Leu Cys Tyr Ser
 1425 1430 1435 1440
 Asn Pro Cys Arg Asn Gly Gly Ala Cys Ala Arg Arg Glu Gly Gly Tyr
 1445 1450 1455
 Thr Cys Val Cys Arg Pro Arg Phe Thr Gly Glu Asp Cys Glu Leu Asp
 1460 1465 1470

Thr Glu Ala Gly Arg Cys Val Pro Gly Val Cys Arg Asn Gly Gly Thr
1475 1480 1485

Cys Thr Asp Ala Pro Asn Gly Gly Phe Arg Cys Gln Cys Pro Ala Gly
1490 1495 1500

Gly Ala Phe Glu Gly Pro Arg Cys Glu Val Ala Ala Arg Ser Phe Pro
1505 1510 1515 1520

Pro Ser Ser Phe Val Met Phe Arg Gly Leu Arg Gln Arg Phe His Leu
1525 1530 1535

Thr Leu Ser Leu Ser Phe Ala Thr Val Gln Gln Ser Gly Leu Leu Phe
1540 1545 1550

Tyr Asn Gly Arg Leu Asn Glu Lys His Asp Phe Leu Ala Leu Glu Leu
1555 1560 1565

Val Ala Gly Gln Val Arg Leu Thr Tyr Ser Thr Gly Glu Ser Asn Thr
1570 1575 1580

Val Val Ser Pro Thr Val Pro Gly Gly Leu Ser Asp Gly Gln Trp His
1585 1590 1595 1600

Thr Val His Leu Arg Tyr Tyr Asn Lys Pro Arg Thr Asp Ala Leu Gly
1605 1610 1615

Gly Ala Gln Gly Pro Ser Lys Asp Lys Val Ala Val Leu Ser Val Asp
1620 1625 1630

Asp Cys Asp Val Ala Val Ala Leu Gln Phe Gly Ala Glu Ile Gly Asn
1635 1640 1645

Tyr Ser Cys Ala Ala Ala Gly Val Gln Thr Ser Ser Lys Lys Ser Leu
1650 1655 1660

Asp Leu Thr Gly Pro Leu Leu Leu Gly Gly Val Pro Asn Leu Pro Glu
1665 1670 1675 1680

Asn Phe Pro Val Ser His Lys Asp Phe Ile Gly Cys Met Arg Asp Leu
1685 1690 1695

His Ile Asp Gly Arg Arg Val Asp Met Ala Ala Phe Val Ala Asn Asn
1700 1705 1710

Gly Thr Met Ala Gly Cys Gln Ala Lys Leu His Phe Cys Asp Ser Gly
1715 1720 1725

Pro Cys Lys Asn Ser Gly Phe Cys Ser Glu Arg Trp Gly Ser Phe Ser
1730 1735 1740

Cys Asp Cys Pro Val Gly Phe Gly Gly Lys Asp Cys Gln Leu Thr Met
1745 1750 1755 1760

Ala His Pro His His Phe Arg Gly Asn Gly Thr Leu Ser Trp Asn Phe
1765 1770 1775

Gly Ser Asp Met Ala Val Ser Val Pro Trp Tyr Leu Gly Leu Ala Phe
 1780 1785 1790
 Arg Thr Arg Ala Thr Gln Gly Val Leu Met Gln Val Gln Ala Gly Pro
 1795 1800 1805
 His Ser Thr Leu Leu Cys Gln Leu Asp Arg Gly Leu Leu Ser Val Thr
 1810 1815 1820
 Val Thr Arg Gly Ser Gly Arg Ala Ser His Leu Leu Leu Asp Gln Val
 1825 1830 1835 1840
 Thr Val Ser Asp Gly Arg Trp His Asp Leu Arg Leu Glu Leu Gln Glu
 1845 1850 1855
 Glu Pro Gly Gly Arg Arg Gly His His Val Leu Met Val Ser Leu Asp
 1860 1865 1870
 Phe Ser Leu Phe Gln Asp Thr Met Ala Val Gly Ser Glu Leu Gln Gly
 1875 1880 1885
 Leu Lys Val Lys Gln Leu His Val Gly Gly Leu Pro Pro Gly Ser Ala
 1890 1895 1900
 Glu Glu Ala Pro Gln Gly Leu Val Gly Cys Ile Gln Gly Val Trp Leu
 1905 1910 1915 1920
 Gly Ser Thr Pro Ser Gly Ser Pro Ala Leu Leu Pro Pro Ser His Arg
 1925 1930 1935
 Val Asn Ala Glu Pro Gly Cys Val Val Thr Asn Ala Cys Ala Ser Gly
 1940 1945 1950
 Pro Cys Pro Pro His Ala Asp Cys Arg Asp Leu Trp Gln Thr Phe Ser
 1955 1960 1965
 Cys Thr Cys Gln Pro Gly Tyr Tyr Gly Pro Gly Cys Val Asp Ala Cys
 1970 1975 1980
 Leu Leu Asn Pro Cys Gln Asn Gln Gly Ser Cys Arg His Leu Pro Gly
 1985 1990 1995 2000
 Ala Pro His Gly Tyr Thr Cys Asp Cys Val Gly Gly Tyr Phe Gly His
 2005 2010 2015
 His Cys Glu His Arg Met Asp Gln Gln Cys Pro Arg Gly Trp Trp Gly
 2020 2025 2030
 Ser Pro Thr Cys Gly Pro Cys Asn Cys Asp Val His Lys Gly Phe Asp
 2035 2040 2045
 Pro Asn Cys Asn Lys Thr Asn Gly Gln Cys His Cys Lys Glu Phe His
 2050 2055 2060
 Tyr Arg Pro Arg Gly Ser Asp Ser Cys Leu Pro Cys Asp Cys Tyr Pro
 2065 2070 2075 2080

Val Gly Ser Thr Ser Arg Ser Cys Ala Pro His Ser Gly Gln Cys Pro
2085 2090 2095

Cys Arg Pro Gly Ala Leu Gly Arg Gln Cys Asn Ser Cys Asp Ser Pro
2100 2105 2110

Phe Ala Glu Val Thr Ala Ser Gly Cys Arg Val Leu Tyr Asp Ala Cys
2115 2120 2125

Pro Lys Ser Leu Arg Ser Gly Val Trp Trp Pro Gln Thr Lys Phe Gly
2130 2135 2140

Val Leu Ala Thr Val Pro Cys Pro Arg Gly Ala Leu Gly Ala Ala Val
2145 2150 2155 2160

Arg Leu Cys Asp Glu Ala Gln Gly Trp Leu Glu Pro Asp Leu Phe Asn
2165 2170 2175

Cys Thr Ser Pro Ala Phe Arg Glu Leu Ser Leu Leu Leu Asp Gly Leu
2180 2185 2190

Glu Leu Asn Lys Thr Ala Leu Asp Thr Met Glu Ala Lys Lys Leu Ala
2195 2200 2205

Gln Arg Leu Arg Glu Val Thr Gly His Thr Asp His Tyr Phe Ser Gln
2210 2215 2220

Asp Val Arg Val Thr Ala Arg Leu Leu Ala His Leu Leu Ala Phe Glu
2225 2230 2235 2240

Ser His Gln Gln Gly Phe Gly Leu Thr Ala Thr Gln Asp Ala His Phe
2245 2250 2255

Asn Glu Asn Leu Leu Trp Ala Gly Ser Ala Leu Leu Ala Pro Glu Thr
2260 2265 2270

Gly Asp Leu Trp Ala Ala Leu Gly Gln Arg Ala Pro Gly Gly Ser Pro
2275 2280 2285

Gly Ser Ala Gly Leu Val Arg His Leu Glu Glu Tyr Ala Ala Thr Leu
2290 2295 2300

Ala Arg Asn Met Glu Leu Thr Tyr Leu Asn Pro Met Gly Leu Val Thr
2305 2310 2315 2320

Pro Asn Ile Met Leu Ser Ile Asp Arg Met Glu His Pro Ser Ser Pro
2325 2330 2335

Arg Gly Ala Arg Arg Tyr Pro Arg Tyr His Ser Asn Leu Phe Arg Gly
2340 2345 2350

Gln Asp Ala Trp Asp Pro His Thr His Val Leu Leu Pro Ser Gln Ser
2355 2360 2365

Pro Arg Pro Ser Pro Ser Glu Val Leu Pro Thr Ser Ser Ser Ile Glu
2370 2375 2380

Leu Asp Pro Glu Gly Tyr Gly Asn Pro Asp Phe Cys Trp Ile Ser Val
2690 2695 2700

His Glu Pro Leu Ile Trp Ser Phe Ala Gly Pro Val Val Leu Val Ile
2705 2710 2715 2720

Val Met Asn Gly Thr Met Phe Leu Leu Ala Ala Arg Thr Ser Cys Ser
2725 2730 2735

Thr Gly Gln Arg Glu Ala Lys Lys Thr Ser Ala Leu Arg Thr Leu Arg
2740 2745 2750

Ser Ser Phe Leu Leu Leu Leu Leu Val Ser Ala Ser Trp Leu Phe Gly
2755 2760 2765

Leu Leu Ala Val Asn His Ser Ile Leu Ala Phe His Tyr Leu His Ala
2770 2775 2780

Gly Leu Cys Gly Leu Gln Gly Leu Ala Val Leu Leu Leu Phe Cys Val
2785 2790 2795 2800

Leu Asn Ala Asp Ala Arg Ala Ala Trp Met Pro Ala Cys Leu Gly Arg
2805 2810 2815

Lys Ala Ala Pro Glu Glu Ala Arg Pro Ala Pro Gly Leu Gly Pro Gly
2820 2825 2830

Ala Tyr Asn Asn Thr Ala Leu Phe Glu Glu Ser Gly Leu Ile Arg Ile
2835 2840 2845

Thr Leu Gly Ala Ser Thr Val Ser Ser Val Ser Ser Ala Arg Ser Gly
2850 2855 2860

Arg Thr Gln Asp Gln Asp Ser Gln Arg Gly Arg Ser Tyr Leu Arg Asp
2865 2870 2875 2880

Asn Val Leu Val Arg His Gly Ser Ala Ala Asp His Thr Asp His Ser
2885 2890 2895

Leu Gln Ala His Ala Gly Pro Thr Asp Leu Asp Val Ala Met Phe His
2900 2905 2910

Arg Asp Ala Gly Ala Asp Ser Asp Ser Asp Ser Asp Leu Ser Leu Glu
2915 2920 2925

Glu Glu Arg Ser Leu Ser Ile Pro Ser Ser Glu Ser Glu Asp Asn Gly
2930 2935 2940

Arg Thr Arg Gly Arg Phe Gln Arg Pro Leu Cys Arg Ala Ala Gln Ser
2945 2950 2955 2960

Glu Arg Leu Leu Thr His Pro Lys Asp Val Asp Gly Asn Asp Leu Leu
2965 2970 2975

Ser Tyr Trp Pro Ala Leu Gly Glu Cys Glu Ala Ala Pro Cys Ala Leu
2980 2985 2990

100-443887-100

Val Val Thr Ala Ala Val Ala Gly Val Val Leu Val Val Val Lys Leu
3605 3610 3615

Leu Asn Asp Lys Leu Gln Gln Gln Leu Pro Met Pro Ile Pro Gly Glu
3620 3625 3630

Leu Leu Thr Leu Ile Gly Ala Thr Gly Ile Ser Tyr Gly Met Gly Leu
3635 3640 3645

Lys His Arg Phe Glu Val Asp Val Val Gly Asn Ile Pro Ala Gly Leu
3650 3655 3660

Val Pro Pro Val Ala Pro Asn Thr Gln Leu Phe Ser Lys Leu Val Gly
3665 3670 3675 3680

Ser Ala Phe Thr Ile Ala Val Val Gly Phe Ala Ile Ala Ile Ser Leu
3685 3690 3695

Gly Lys Ile Phe Ala Leu Arg His Gly Tyr Arg Val Asp Ser Asn Gln
3700 3705 3710

Glu Leu Val Ala Leu Gly Leu Ser Asn Leu Ile Gly Gly Ile Phe Gln
3715 3720 3725

Cys Phe Pro Val Ser Cys Ser Met Ser Arg Ser Leu Val Gln Glu Ser
3730 3735 3740

Thr Gly Gly Asn Ser Gln Val Ala Gly Ala Ile Ser Ser Leu Phe Ile
3745 3750 3755 3760

Leu Leu Ile Ile Val Lys Leu Gly Glu Leu Phe His Asp Leu Pro Lys
3765 3770 3775

Ala Val Leu Ala Ala Ile Ile Ile Val Asn Leu Lys Gly Met Leu Arg
3780 3785 3790

Gln Leu Ser Asp Met Arg Ser Leu Trp Lys Ala Asn Arg Ala Asp Leu
3795 3800 3805

Leu Ile Trp Leu Val Thr Phe Thr Ala Thr Ile Leu Leu Asn Leu Asp
3810 3815 3820

Leu Gly Leu Val Val Ala Val Ile Phe Ser Leu Leu Leu Val Val Val
3825 3830 3835 3840

Arg Thr Gln Met Pro His Tyr Ser Val Leu Gly Gln Val Pro Asp Thr
3845 3850 3855

Asp Ile Tyr Arg Asp Val Ala Glu Tyr Ser Glu Ala Lys Glu Val Arg
3860 3865 3870

Gly Val Lys Val Phe Arg Ser Ser Ala Thr Val Tyr Phe Ala Asn Ala
3875 3880 3885

Glu Phe Tyr Ser Asp Ala Leu Lys Gln Arg Cys Gly Val Asp Val Asp
3890 3895 3900

SECRET

Lys Leu Lys Gln Leu Gln Lys Glu Glu Lys Leu Arg Lys Gln Ala Gly
3925 3930 3935

Lys Met Glu Asp Ala Thr Ala Asn Gly Gln Glu Asp Ser Lys Ala Pro
3955 3960 3965

Ser Leu Ile Leu Asp Leu Gly Ala Leu Ser Phe Val Asp Thr Val Cys
3985 3990 3995 4000

Glu Val Tyr Met Ala Ala Cys His Ser Pro Val Val Ser Gln Leu Glu
4020 4025 4030

Ser Val His Asp Ala Val Thr Phe Ala Leu Gln His Pro Arg Pro Val
4050 4055 4060

Gln Leu Glu Pro Glu Leu Leu Leu Arg Asn Asn Leu Leu Ser Gly Ile
4085 4090 4095

Pro Glu Lys Val Gln Gly Ser Val Gly Ala Asn Gly Gln Ser Leu Glu
4100 4105 4110

Asp Thr Glu
4115

```
<210> 5
<211> 1438
<212> DNA
<213> Homo sapiens
```

<400> 5						
tatgcagcgc	gtgaacatga	tcatggcaga	atcaccaggc	ctcatcacca	tctgcctttt	60
aggatatcta	ctcagtgtcg	aatgtacagt	ttttcttgat	catgaaaacg	ccaacaaaaat	120
tctgaatcgg	ccaaagaggt	ataattcagg	taaattggaa	gagtttgttc	aaggggaacct	180
tgagagagaa	tgtctggagg	aaaagtgtag	ttttgaagaa	gcacgagaag	tttttgaaaa	240
cactgaaaga	acaactgaat	tttggaaagca	gtatgttgat	ggagatcagt	gttgatccaa	300
tccatgttta	aatggcgcca	gttgcaagga	tgacattaat	tccatgaat	gttggtgtcc	360
ctttggattt	gaaggaaaga	actgtgaatt	agatgtggac	tatgtaaatt	ctactgaagc	420

tgaaaccatt ttggataaca tcaactcaaag cacccaatca tttaatgact tcaactcgggt 480
 tgttggtgga gaagatgcc aaccagggtca attcccttgg cagggttgttt tgaatggtaa 540
 agttgatgca ttctgtggag gctctatcgt taatgaaaaa tggattgtaa ctgctgccca 600
 ctgtgttgaa actggtgtta aaattacagt tgtcgcagggt gaacataata ttgaggagac 660
 agaacataca gagcaaaagc gaaatgtgat tcgaattatt cctcaccaca actacaatgc 720
 agctattaat aagtacaacc atgacattgc ccttctggaa ctggacgaac ccttagtgct 780
 aaacagctac gttacaccta tttgcattgc tgacaaggaa tacacgaaca tcttcctcaa 840
 atttqgactt qgctatgtaa gtgqctqggg aagagtcttc cacaaaqqa gatcaqcttt 900
 agttcttcag taccttagag ttccacttgt tgaccgagcc acatgtcttc gatctacaaa 960
 qttcaccatc tataacaaca tgttctctgc tqccttccat gaaggaqqa aaqattcatq 1020
 tcaaggagat agtgggggac cccatgttac tgaagtggaa gggaccagtt tcttaactgg 1080
 aattattagc tggggtgaag agtgtgcaat gaaaggcaaa tatggaatat ataccaaggt 1140
 atcccggat gtcaactgga ttaaggaaaa aacaaagctc acttaatgaa agatggattt 1200
 ccaagggttaa ttcatggaa ttgaaaatta acagggcctc tcaactaacta atcactttcc 1260
 catcttttgt tagatttgaa tatatacatt ctatgatcat tgctttttct ctttacaggg 1320
 gagaatttca tattttacct gagcaaatg attagaaaat ggaaccacta gaggaatata 1380
 atgtgttagg aaattacagt catttctaag ggcccagcct tgacaaattg tgagtaaa 1438

<210> 6
 <211> 394
 <212> PRT
 <213> Homo sapiens

<400> 6
 Met Gln Arg Val Asn Met Ile Met Ala Glu Ser Pro Gly Leu Ile Thr
 1 5 10 15
 Ile Cys Leu Leu Gly Tyr Leu Leu Ser Ala Glu Cys Thr Val Phe Leu
 20 25 30
 Asp His Glu Asn Ala Asn Lys Ile Leu Asn Arg Pro Lys Arg Tyr Asn
 35 40 45
 Ser Gly Lys Leu Glu Glu Phe Val Gln Gly Asn Leu Glu Arg Glu Cys
 50 55 60
 Leu Glu Glu Lys Cys Ser Phe Glu Glu Ala Arg Glu Val Phe Glu Asn
 65 70 75 80
 Thr Glu Arg Thr Thr Glu Phe Trp Lys Gln Tyr Val Asp Gly Asp Gln
 85 90 95
 Cys Glu Ser Asn Pro Cys Leu Asn Gly Gly Ser Cys Lys Asp Asp Ile
 100 105 110
 Asn Ser Tyr Glu Cys Trp Cys Pro Phe Gly Phe Glu Gly Lys Asn Cys
 115 120 125
 Glu Leu Asp Val Asp Tyr Val Asn Ser Thr Glu Ala Glu Thr Ile Leu
 130 135 140
 Asp Asn Ile Thr Gln Ser Thr Gln Ser Phe Asn Asp Phe Thr Arg Val
 145 150 155 160
 Val Gly Gly Glu Asp Ala Lys Pro Gly Gln Phe Pro Trp Gln Val Val
 165 170 175

cagcctcgat	ggggagcact	tggccatgga	gatgcacata	gtacatgaga	aagagaagg	480
gacatcgagg	aatgtgaaag	aggcccagga	ccctgaagac	gaaattgcgg	tgctggcctt	540
tctggtggag	atcgggagaa	tgaactggcc	accaccactg	gtccctgca	gactttctca	600
agacccttcc	ctccctttcc	aggtcggaa	ccaggtgaac	gagggtctcc	agccactggt	660
ggaggcactg	tctaattatcc	ccaaacctga	gatgagcact	acgatggcag	agagcagcct	720
gttggaactg	ctcccaaaag	aggagaaact	gaggcactac	tctccgtacc	tgggtcact	780
caccacaccg	acctgcgatg	agaaggctcg	ctggactgtg	tccggggagc	ccattcagct	840
tcacagagaa	caatcctcgg	catttctctca	gaagctgtac	tacgacaagg	aacagacagt	900
gagcatgaag	gacaatgtca	ggcccctgca	gcagctgggg	cagcgcacgg	tgataaagtc	960
caaaaccccc	qgtcggcccg	tgcctatggc	cctgcctgcc	ctgctggacc	ccatgctggc	1020
ctgctctgct	gcgggcttcc	tgcgatgatg	gtcactttct	gcacgcagcc	tctctgttgc	1080
ctcaactctc	caagttccag	gtcttcgg				1108

```
<210> 8
<211> 336
<212> PRT
<213> Homo sapiens
```

Met Arg Met Leu Leu Ala Leu Leu Ala Leu Ser Ala Ala Arg Pro Ser
1 5 10 15

195	200	205
Glu Ala Leu Ser Asn Ile Pro Lys Pro Glu Met Ser Thr Thr Met Ala		
210	215	220
Glu Ser Ser Leu Leu Asp Leu Leu Pro Lys Glu Glu Lys Leu Arg His		
225	230	235
Tyr Phe Arg Tyr Leu Gly Ser Leu Thr Thr Pro Thr Cys Asp Glu Lys		
245	250	255
Val Val Trp Thr Val Phe Arg Glu Pro Ile Gln Leu His Arg Glu Gln		
260	265	270
Ile Leu Ala Phe Ser Gln Lys Leu Tyr Tyr Asp Lys Glu Gln Thr Val		
275	280	285
Ser Met Lys Asp Asn Val Arg Pro Leu Gln Gln Leu Gly Gln Arg Thr		
290	295	300
Val Ile Lys Ser Gly Ala Pro Gly Arg Pro Leu Pro Trp Ala Leu Pro		
305	310	315
Ala Leu Leu Gly Pro Met Leu Ala Cys Leu Leu Ala Gly Phe Leu Arg		
325	330	335

<210> 9
 <211> 1806
 <212> DNA
 <213> Homo sapiens

<400> 9

aacaaagcca	tccccggagg	aaaggagacg	tcggtcacca	ttgacatcca	gcaccctcca	60
ctggtcaacc	tctcgggtgga	gccacagcca	gtgctggagg	acaacgtcgt	cactttccac	120
tgctctgcaa	aggccaaccc	agctgtcacc	cagtacaggt	gggccaagcg	gggccagatc	180
atcaaggagg	catctggaga	ggtgtacagg	accacagtgg	actacacgta	cttctcagag	240
cccgctctct	gtgaggtgac	caaagccctg	ggcagcacca	acctcagccg	cacggttgac	300
gtctactttg	ggccccggat	gaccacagaa	ccccaatcct	tgctcgtgga	tctgggctct	360
gatgccatct	taagctgcgc	ctggaccggc	aaccatccc	tgaccatcgt	ctggatgaag	420
cggggctccg	gagtggtcct	gagcaatgag	aagaccctga	ccctcaaata	cgtgcgccag	480
gaggacgcgg	gcaagtacgt	gtgccgggct	gtggtgcccc	gtgtgggagc	cggggagaga	540
gaggtgaccc	tgaccgtcaa	tggaccccc	atcatctcca	gcaccagac	ccagcacgcc	600
ctccacggcg	agaagggcc	gatcaagtgc	ttcatccgga	gcacgcgcgc	gccggaccgc	660
atcgctggt	cctggaagga	gaacgttctg	gagtcgggca	catcggggcg	ctatacgggtg	720
gagaccatca	gcaccgagga	ggggtcctc	tccacctga	ccatcagcaa	catcgtgcgg	780
gccgacttcc	agaccatcta	caactgcacg	gcctggaaca	gcttcggctc	cgacactgag	840
atcatccggc	tcaaggagca	aggttcggaa	atgaagtcgg	gagccgggct	ggaagcagag	900
tctgtgccga	tggccgtcat	cattgggggtg	gccgtaggag	ctgggtgtggc	cttctcgtc	960
cttatggcaa	ccatcgtggc	gttctgctgt	gcccgttccc	agagaaatct	caaaggtgtt	1020
gtgtcagcca	aaaatgatat	ccgagtggaa	attgtccaca	aggaaccagc	ctctgggtcgg	1080
gaggggtgagg	agcactccac	catcaagcag	ctgatgatgg	accgggggtga	attccagcaa	1140
gactcagtec	tgaacacgct	ggaggtcctc	aaagaagagg	agaaagagtt	tcagaacctg	1200
aaggacccca	ccaatggcta	ctacagcgtc	aacaccttca	aagagcacca	ctcaaccccc	1260

accatctccc	tctccagctg	ccagcccgc	ctgcgtcctg	cgggcaagca	gcgtgtgcc	1320
acaggcatgt	ccttcaccaa	catctacagc	accctgagcg	gccagggccg	cctctacgac	1380
tacgggcagc	ggtttgtgct	gggcatgggc	agctcgtcca	tcgagctttg	tgagcgggag	1440
ttccagagag	gctccctcag	cgacagcagc	tecttctctg	acacgcagtg	tgacagcagc	1500
gtcagcagca	gcggcaagca	ggatggctat	gtgcagtctg	acaaggccag	caaggcttct	1560
gcttctcct	ccaccactc	ccagtctctg	tcccagaact	ctgacccccg	tgcacccctg	1620
cagcggcgga	tgcagactca	cgtctaagga	tcaacacccg	cgggtcgggga	cgggccaggg	1680
aaqaqqtcaq	qqcacqttct	qgttgctccag	qgactqtqqq	gtactttaca	qaqqacacca	1740
gaatggccca	cttcagggac	agcctcccag	cgcctctgcc	actgccttcc	ttcgaagctc	1800
tqatca						1806

```
<210> 10
<211> 548
<212> PRT
<213> Homo sapiens
```

<400> 10																
Asn	Lys	Ala	Ile	Pro	Gly	Gly	Lys	Glu	Thr	Ser	Val	Thr	Ile	Asp	Ile	
1				5					10					15		
Gln	His	Pro	Pro	Leu	Val	Asn	Leu	Ser	Val	Glu	Pro	Gln	Pro	Val	Leu	
			20					25					30			
Glu	Asp	Asn	Val	Val	Thr	Phe	His	Cys	Ser	Ala	Lys	Ala	Asn	Pro	Ala	
		35					40					45				
Val	Thr	Gln	Tyr	Arg	Trp	Ala	Lys	Arg	Gly	Gln	Ile	Ile	Lys	Glu	Ala	
	50					55					60					
Ser	Gly	Glu	Val	Tyr	Arg	Thr	Thr	Val	Asp	Tyr	Thr	Tyr	Phe	Ser	Glu	
	65				70					75					80	
Pro	Val	Ser	Cys	Glu	Val	Thr	Lys	Ala	Leu	Gly	Ser	Thr	Asn	Leu	Ser	
				85					90					95		
Arg	Thr	Val	Asp	Val	Tyr	Phe	Gly	Pro	Arg	Met	Thr	Thr	Glu	Pro	Gln	
			100					105					110			
Ser	Leu	Leu	Val	Asp	Leu	Gly	Ser	Asp	Ala	Ile	Leu	Ser	Cys	Ala	Trp	
	115						120					125				
Thr	Gly	Asn	Pro	Ser	Leu	Thr	Ile	Val	Trp	Met	Lys	Arg	Gly	Ser	Gly	
	130					135					140					
Val	Val	Leu	Ser	Asn	Glu	Lys	Thr	Leu	Thr	Leu	Lys	Ser	Val	Arg	Gln	
	145				150						155				160	
Glu	Asp	Ala	Gly	Lys	Tyr	Val	Cys	Arg	Ala	Val	Val	Pro	Arg	Val	Gly	
				165					170					175		
Ala	Gly	Glu	Arg	Glu	Val	Thr	Leu	Thr	Val	Asn	Gly	Pro	Pro	Ile	Ile	
			180					185					190			
Ser	Ser	Thr	Gln	Thr	Gln	His	Ala	Leu	His	Gly	Glu	Lys	Gly	Gln	Ile	
		195					200					205				

Lys Cys Phe Ile Arg Ser Thr Pro Pro Pro Asp Arg Ile Ala Trp Ser
 210 215 220
 Trp Lys Glu Asn Val Leu Glu Ser Gly Thr Ser Gly Arg Tyr Thr Val
 225 230 235 240
 Glu Thr Ile Ser Thr Glu Glu Gly Val Ile Ser Thr Leu Thr Ile Ser
 245 250 255
 Asn Ile Val Arg Ala Asp Phe Gln Thr Ile Tyr Asn Cys Thr Ala Trp
 260 265 270
 Asn Ser Phe Gly Ser Asp Thr Glu Ile Ile Arg Leu Lys Glu Gln Gly
 275 280 285
 Ser Glu Met Lys Ser Gly Ala Gly Leu Glu Ala Glu Ser Val Pro Met
 290 295 300
 Ala Val Ile Ile Gly Val Ala Val Gly Ala Gly Val Ala Phe Leu Val
 305 310 315 320
 Leu Met Ala Thr Ile Val Ala Phe Cys Cys Ala Arg Ser Gln Arg Asn
 325 330 335
 Leu Lys Gly Val Val Ser Ala Lys Asn Asp Ile Arg Val Glu Ile Val
 340 345 350
 His Lys Glu Pro Ala Ser Gly Arg Glu Gly Glu Glu His Ser Thr Ile
 355 360 365
 Lys Gln Leu Met Met Asp Arg Gly Glu Phe Gln Gln Asp Ser Val Leu
 370 375 380
 Lys Gln Leu Glu Val Leu Lys Glu Glu Glu Lys Glu Phe Gln Asn Leu
 385 390 395 400
 Lys Asp Pro Thr Asn Gly Tyr Tyr Ser Val Asn Thr Phe Lys Glu His
 405 410 415
 His Ser Thr Pro Thr Ile Ser Leu Ser Ser Cys Gln Pro Asp Leu Arg
 420 425 430
 Pro Ala Gly Lys Gln Arg Val Pro Thr Gly Met Ser Phe Thr Asn Ile
 435 440 445
 Tyr Ser Thr Leu Ser Gly Gln Gly Arg Leu Tyr Asp Tyr Gly Gln Arg
 450 455 460
 Phe Val Leu Gly Met Gly Ser Ser Ser Ile Glu Leu Cys Glu Arg Glu
 465 470 475 480
 Phe Gln Arg Gly Ser Leu Ser Asp Ser Ser Ser Phe Leu Asp Thr Gln
 485 490 495
 Cys Asp Ser Ser Val Ser Ser Ser Gly Lys Gln Asp Gly Tyr Val Gln
 500 505 510

Phe Asp Lys Ala Ser Lys Ala Ser Ala Ser Ser Ser His His Ser Gln
515 520 525

Ser Ser Ser Gln Asn Ser Asp Pro Ser Arg Pro Leu Gln Arg Arg Met
530 535 540

Gln Thr His Val
545

<210> 11
<211> 2405
<212> DNA
<213> Homo sapiens

<400> 11
g c g g c g c t g g a g g c g t t g c c g c g c c c c g c c c g a g g a g c c c c g g t g g c c g c c c a g g t c g 60
c a g c c c a a g t c g c g g c g c c g t c g c t c t c c c g t c c c c g c c g a c t c c c t c c g a t g g c g g c a 120
c c a a g a g g c c c g g g c t g c g g g c g c t g a a g a a g a t g g g c c t g a c g g a g g a c g a g g a c g t g c 180
g c g c c a t g e t g c g g g g c t c c g g c t c c g c a a g a t c c g c t c g c g c a c a g a g g a g c 240
g g c t g t a c c g g c t g c a g g a g g a c g c g t g t g g t t c c a g c g g c g c a t c c c g c g t g 300
c g c c a t c g c a g c a c a t c t t c t t c g t g c a g c a c a t c g a g g c g g t c c g c g a g g c c c c a c c a g t 360
c c g a g g g c c t g c g g c g c t t c g g g g t g c c t t c g c g c c a g c g c g t g c c t c a c c a t c g c c t 420
t c a a g g g c c g c c g c a a g a a c c t g g a c c t g g c g g c g c c c a c g g c t g a g g a a g c g c a g c g c t 480
g g g t g c g c g g t c t g a c c a a g c t c c g c g c g c g c c t g g a c g c c a t g a g c c a g c g c g a g c g g c 540
t a g a c c a a t g g a t c c a c t c c t a t c t g c a c c g g g c t g a c t c c a a c c a g g a c a g c a a g a t g a 600
g c t t c a a g g a g a t c a a g a g c c t g e t g a g a a t g g t c a a c g t g g a c a t g a a c g a c a t g t a c g 660
c c t a c c t c c t c t t c a a g g a g t g t g a c c a c t c c a a c a a c g a c c g t c t a g a g g g g c t g a g a 720
t c g a g g a g t t c e t g c g g c g g g a g g t g a a g c g g c g g a g c t g g a g g a g a t c t t c c a t c a g t 780
a c t c g g g c g a g g a c c g c g t g c t g a g t g c c c t g a g e t g c t g g a g t t c c t g g a g g a c c a g g 840
g c g a g g a g g g c g c c a c a c t g g c c c g c g c c a g c a g e t c a t t c a g a c c t a t g a g c t c a a c g 900
a g a c a g c c c c t g c a g c c a a g c a g c a t g a g c t g a t g a c a c t g g a t g g c t t c a t g a t g t a c c 960
t g t t g t c g c c g g a g g g g g c g c c t t g g a c a c a c c c a c a c g t g t g t g t t c c a g g a c a t g a 1020
a c c a g c c c c t t g c c c a c t a c t t c a t c t c t t c c t c c c a c a c a c c t a t c t g a c t a c c c 1080
a g a t c g g g g g g c c c a g c a g c a c c a g g c c t a t g t t a g g g c c t t t g c c c a g g a t g c c g c t 1140
g c g t g g a g c t g g a g t g c t g g a g g g c c a g g g g g a g c c g t c a t c t a t c a t g g c c a t a 1200
c c c t c a c t c c c a a g a t t c t c t t c c g g g a c g t g g t c c a a g c c g t g c g c g a c c a t g c c t t c a 1260
c g g t g a g c c c t t a c c c t g t c a t c c t a t c c c t g g a g a a c c a c t g c g g g c t g g a g c a g c a g g 1320
c t g c c a t g y c c c g c c a c c t c t g c a c c a t c c t g g g g a c a t g c t g t g a c a g g c g c t g g 1380
a c t c c c c a a a t c c c g a g g a g c t g c c a t c c c c a g a g c a g c t g a a g g g c c g g g t c c t g g t g a 1440
a g g g a a a g a a g t t g c c c g c t g c t c g g a g c g a g g a t g g c c g g c t c t g t c g a t c g g g a g g 1500
a g g a g g a g a g a g g a t g a c g a g g a g a a g a g g a g g t g g a g g c t g c a g c g c a g a g a g g c a g a 1560
t c t c c c c g g a g c t g t c g g c c t g g c t g t g t a c t g c c a c g c c a c c c g c c t g c g a c c c g a c a 1620
c a t c a c c t g g a g g a c t a g g a a g c a g c c a g g t g a a g a g g g g a g a g c g c t t t c c a g a c a g g a 1680
g g a a c a g g t t g t t g a a g g c c t g g g g g a a c a g c t t t g t c a g g c a c a a t g c c c g c a g c t g a 1740
c c c g c g t g t a c c g c t g g g g c t g c g g a t g a a c t c a g c c a a c t a c a g t c c c a g g a g a t g t 1800
g g a a c t c g g g c t g t c a g e t g t g g c c t t g a a c t t c c a g a c g c c a g g c t a c g a g a t g g a c c 1860
t c a a t g c c g g g c g c t t c c t a g t c a a t g g g c a g t g t g g c t a c g t c c t a a a a c c t g c c t g c c 1920
t g c g g c a a c c t g a c t c g a c c t t t g a c c c c g a g t a c c c a g g a c c t c c c a g a a c c a c t c t c a 1980
g c a t c c a g g t g c t g a c t g c a c a g c a g c t g c c a a g c t g a a t g c c g a g a a g t g c c a c a c t c c a 2040
t t g t g g a c c c c t g g t g c g c a t t g a g a t c c a a g g g t g c c c g c a g a c t g t g c c c g g c a g g 2100
a g a c t g a c t a c g t g c t c a a c a a t g g c t t c a a c c c c g c t g g g g c a g a c c c t g c a g t t c c 2160
a g c t g c g g g c t c c g g a g c t g g c a c t g g t c c g g t t t g t g g t g g a a g a t t a t g a c g c c a c c t 2220
c c c c a a t g a c t t t g t g g g c a g t t t a c a c t g c c t c t a g c a g c c t a a a g c a a g g g t a c c 2280
g c c a c a t a c a c c t g c t t t c c a a g g a c g g g c c t c a c t g t c a c c a g c c a c g c t c t t c a t c c 2340
a a a t c e g c a t c c a g c g c t c c t g a g g g c c c a c c t c a c t c g c c t t g g g g t t c t g c g a g t g c c 2400
a g t c c 2405

<210> 12
 <211> 736
 <212> PRT
 <213> Homo sapiens

<400> 12
 Met Gly Leu Thr Glu Asp Glu Asp Val Arg Ala Met Leu Arg Gly Ser
 1 5 10 15
 Arg Leu Arg Lys Ile Arg Ser Arg Thr Trp His Lys Glu Arg Leu Tyr
 20 25 30
 Arg Leu Gln Glu Asp Gly Leu Ser Val Trp Phe Gln Arg Arg Ile Pro
 35 40 45
 Arg Ala Pro Ser Gln His Ile Phe Phe Val Gln His Ile Glu Ala Val
 50 55 60
 Arg Glu Gly His Gln Ser Glu Gly Leu Arg Arg Phe Gly Gly Ala Phe
 65 70 75 80
 Ala Pro Ala Arg Cys Leu Thr Ile Ala Phe Lys Gly Arg Arg Lys Asn
 85 90 95
 Leu Asp Leu Ala Ala Pro Thr Ala Glu Glu Ala Gln Arg Trp Val Arg
 100 105 110
 Gly Leu Thr Lys Leu Arg Ala Arg Leu Asp Ala Met Ser Gln Arg Glu
 115 120 125
 Arg Leu Asp Gln Trp Ile His Ser Tyr Leu His Arg Ala Asp Ser Asn
 130 135 140
 Gln Asp Ser Lys Met Ser Phe Lys Glu Ile Lys Ser Leu Leu Arg Met
 145 150 155 160
 Val Asn Val Asp Met Asn Asp Met Tyr Ala Tyr Leu Leu Phe Lys Glu
 165 170 175
 Cys Asp His Ser Asn Asn Asp Arg Leu Glu Gly Ala Glu Ile Glu Glu
 180 185 190
 Phe Leu Arg Arg Leu Leu Lys Arg Pro Glu Leu Glu Glu Ile Phe His
 195 200 205
 Gln Tyr Ser Gly Glu Asp Arg Val Leu Ser Ala Pro Glu Leu Leu Glu
 210 215 220
 Phe Leu Glu Asp Gln Gly Glu Glu Gly Ala Thr Leu Ala Arg Ala Gln
 225 230 235 240
 Gln Leu Ile Gln Thr Tyr Glu Leu Asn Glu Thr Ala Pro Ala Ala Lys
 245 250 255
 Gln His Glu Leu Met Thr Leu Asp Gly Phe Met Met Tyr Leu Leu Ser

260	265	270
Pro Glu Gly Ala Ala Leu Asp Asn Thr His Thr Cys Val Phe Gln Asp		
275	280	285
Met Asn Gln Pro Leu Ala His Tyr Phe Ile Ser Ser Ser His Asn Thr		
290	295	300
Tyr Leu Thr Asp Ser Gln Ile Gly Gly Pro Ser Ser Thr Glu Ala Tyr		
305	310	315
Val Arg Ala Phe Ala Gln Gly Cys Arg Cys Val Glu Leu Asp Cys Trp		
325	330	335
Glu Gly Pro Gly Gly Glu Pro Val Ile Tyr His Gly His Thr Leu Thr		
340	345	350
Ser Lys Ile Leu Phe Arg Asp Val Val Gln Ala Val Arg Asp His Ala		
355	360	365
Phe Thr Val Ser Pro Tyr Pro Val Ile Leu Ser Leu Glu Asn His Cys		
370	375	380
Gly Leu Glu Gln Gln Ala Ala Met Ala Arg His Leu Cys Thr Ile Leu		
385	390	395
Gly Asp Met Leu Val Thr Gln Ala Leu Asp Ser Pro Asn Pro Glu Glu		
405	410	415
Leu Pro Ser Pro Glu Gln Leu Lys Gly Arg Val Leu Val Lys Gly Lys		
420	425	430
Lys Leu Pro Ala Ala Arg Ser Glu Asp Gly Arg Ala Leu Ser Asp Arg		
435	440	445
Glu Glu Glu Glu Glu Asp Asp Glu Glu Glu Glu Glu Glu Val Glu Ala		
450	455	460
Ala Ala Gln Arg Gln Ile Ser Pro Glu Leu Ser Ala Leu Ala Val Tyr		
465	470	475
Cys His Ala Thr Arg Leu Arg Pro Asp Thr Ser Pro Gly Gly Leu Gly		
485	490	495
Ser Ser Gln Val Lys Arg Gly Glu Arg Phe Pro Asp Arg Arg Asn Arg		
500	505	510
Leu Leu Lys Ala Trp Gly Asn Ser Phe Val Arg His Asn Ala Arg Gln		
515	520	525
Leu Thr Arg Val Tyr Pro Leu Gly Leu Arg Met Asn Ser Ala Asn Tyr		
530	535	540
Ser Pro Gln Glu Met Trp Asn Ser Gly Cys Gln Leu Val Ala Leu Asn		
545	550	555
Phe Gln Thr Pro Gly Tyr Glu Met Asp Leu Asn Ala Gly Arg Phe Leu		

565	570	575
Val Asn Gly Gln Cys Gly Tyr Val Leu Lys Pro Ala Cys Leu Arg Gln		
580	585	590
Pro Asp Ser Thr Phe Asp Pro Glu Tyr Pro Gly Pro Pro Arg Thr Thr		
595	600	605
Leu Ser Ile Gln Val Leu Thr Ala Gln Gln Leu Pro Lys Leu Asn Ala		
610	615	620
Glu Lys Pro His Ser Ile Val Asp Pro Leu Val Arg Ile Glu Ile His		
625	630	635
Gly Val Pro Ala Asp Cys Ala Arg Gln Glu Thr Asp Tyr Val Leu Asn		
645	650	655
Asn Gly Phe Asn Pro Arg Trp Gly Gln Thr Leu Gln Phe Gln Leu Arg		
660	665	670
Ala Pro Glu Leu Ala Leu Val Arg Phe Val Val Glu Asp Tyr Asp Ala		
675	680	685
Thr Ser Pro Asn Asp Phe Val Gly Gln Phe Thr Leu Pro Leu Ser Ser		
690	695	700
Leu Lys Gln Gly Tyr Arg His Ile His Leu Leu Ser Lys Asp Gly Ala		
705	710	715
Ser Leu Ser Pro Ala Thr Leu Phe Ile Gln Ile Arg Ile Gln Arg Ser		
725	730	735

<210> 13
 <211> 1059
 <212> DNA
 <213> Homo sapiens

<400> 13

aaacatttgc	taaccaggcc	agtgacagaa	atggattcga	aataccagtg	tgtgaagctg	60
aatgatggtc	acttcatgcc	tgtcctggga	tttggcacct	atgcgcctgc	agaggtacct	120
aaaagtaaag	ctctagaggc	cgtcaaattg	gcaatagaag	ccgggttcca	ccatattgat	180
tctgcacatg	tttacaataa	tgaggagcag	gttggactgg	ccatccgaag	caagattgca	240
gatggcagtg	tgaagagaga	agacatattc	tacacttcaa	agctttggag	caattcccat	300
cgaccagagt	tggtccgacc	agccttggaa	aggtcactga	aaaatcttca	attggactat	360
gttgacctct	atcttattca	ttttccagtg	tctgtaaagc	caggtgagga	agtgatccca	420
aaagatgaaa	atggaaaaat	actatttgac	acagtggatc	tctgtgccac	atggaaggcc	480
ctggagaaat	gcagagatgc	aggtttaacc	aggtccatca	gggtgtccag	tttcaatcac	540
aagctgctgg	aactcatcct	caacaagcca	gggtcaggt	acaagccac	ctgcaaccag	600
gtggaatgtc	acccttacct	caaccagagc	aaactcctgg	agttctgcaa	gtccaaggac	660
attgttctag	ttgcctacag	tgccttggga	tcccaaagag	acccacagtg	ggtggatccc	720
gactgcccac	atctcttgga	ggagccgatc	ttgaaatcca	ttgccaagaa	acacagtcga	780
agcccaggcc	aggtcgccct	gcgctaccag	ctgcagcggg	gagtgggtgt	gctggccaag	840
agcttctctc	aggagagaat	caaagagaac	ttccagggtat	ttgactttga	gttgactcca	900

ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED

```
<210> 14
<211> 323
<212> PRT
<213> Homo sapiens
```

Pro Val Leu Gly Phe Gly Thr Tyr Ala Pro Ala Glu Val Pro Lys Ser
20 25 30

Ile Asp Ser Ala His Val Tyr Asn Asn Glu Glu Gln Val Gly Leu Ala
50 55 60

Tyr Thr Ser Lys Leu Trp Ser Asn Ser His Arg Pro Glu Leu Val Arg
85 90 95

Leu Tyr Leu Ile His Phe Pro Val Ser Val Lys Pro Gly Glu Glu Val
115 120 125

Cys Ala Thr Trp Lys Ala Leu Glu Lys Cys Arg Asp Ala Gly Leu Thr
145 150 155 160

Arg Ser Ile Arg Val Ser Ser Phe Asn His Lys Leu Leu Glu Leu Ile
165 170 175

Leu Asn Lys Pro Gly Leu Arg Tyr Lys Pro Thr Cys Asn Gln Val Glu
180 185 190

Cys His Pro Tyr Leu Asn Gln Ser Lys Leu Leu Glu Phe Cys Lys Ser
195 200 205

Lys Asp Ile Val Leu Val Ala Tyr Ser Ala Leu Gly Ser Gln Arg Asp
210 215 220

Pro Gln Trp Val Asp Pro Asp Cys Pro His Leu Leu Glu Glu Pro Ile
225 230 235 240

Leu Lys Ser Ile Ala Lys Lys His Ser Arg Ser Pro Gly Gln Val Ala

245 250 255

Leu Arg Tyr Gln Leu Gln Arg Gly Val Val Val Leu Ala Lys Ser Phe
260 265 270

Ser Gln Glu Arg Ile Lys Glu Asn Phe Gln Val Phe Asp Phe Glu Leu
275 280 285

Thr Pro Glu Asp Met Lys Ala Ile Asp Gly Leu Asn Arg Asn Leu Arg
290 295 300

Tyr Leu Ser Phe Phe Ser Leu Ala Gly His Pro Asp Tyr Pro Phe Ser
305 310 315 320

Asp Lys Tyr

<210> 15
<211> 879
<212> DNA
<213> Homo sapiens

<400> 15
attataacta ttgtcacaaat ataatagaaag aacattcaaaa aacgtttctca tatgcctttg 60
atTTTTtTgga tttaaaaaagg aaaaaaagcaa tttgggctat ttatgcagtt tgcagaatta 120
tagatgacag tattgataaa tacaaagacc ttgagcaatt aaacggcata gctagagatt 180
tagatgtgat ttatagcgat tgtgattata ttcaagccta tcaaagtgat gcagctatta 240
tgaatgcttt aagtaataca ttgaatacat attcaatacc taaaaaacct tttgaatcct 300
taattcaata tgtgaaggaa gatttagttt taaaagaaat gaaaactgat tcagatttat 360
atgagtattg ctatgggtgtg gtaggtactg tgggtgaatt gttaactcct atattaactt 420
catcaaatga aaataatttc gagcaagctg aagaagctgc gattgcttta ggcaaggcaa 480
tgcaataaac taatatttta agagatgtcg gccaagattt tcaaaatgga agaatttatc 540
taagtgttga aaaattagct caatatcgag ttaacttaca ttctatatat tatgaaggag 600
tttcgccaaa ttatatagaa ctgtgggaaa ttacgctac agagacagtt aggttatatg 660
atattgcatt aaacgggtatt aattattttg acgaagaggt acgttacatt atcgaattag 720
ctgcgatagc ttatcatgaa atacttgtgg aagtaaggaa ggcaaaactat acgttgcata 780
agaaagtata tgtaagcaaa ttgaaaaaaa tgaaaattta tctggaactt agtgcgaaat 840
ataataggag tgaacatta tgaagattgc agttatagg 879

<210> 16
<211> 279
<212> PRT
<213> Homo sapiens

<400> 16
Met Lys Glu His Ser Lys Thr Phe Ser Tyr Ala Phe Asp Phe Leu Asp
1 5 10 15

Leu Lys Arg Lys Lys Ala Ile Trp Ala Ile Tyr Ala Val Cys Arg Ile
20 25 30

Ile Asp Asp Ser Ile Asp Lys Tyr Lys Asp Leu Glu Gln Leu Asn Gly
35 40 45

Ile Ala Arg Asp Leu Asp Val Ile Tyr Ser Asp Cys Asp Tyr Ile Gln

1103564 1103565

```
<210> 17
<211> 939
<212> DNA
<213> Homo sapiens
```

<400> 17						
ttagcaagtc	gcattatcct	cactaaaggg	aacaaaagct	ggagctccac	cgcggtggcg	60
gccgctctag	aactagtgga	tccccgggc	tgcaggaatt	cggcacgagg	gtaaaccac	120
caagcaatcc	tagcctgtga	tggcgtttga	cgtcagctgc	ttcttttggg	tgggtgctgtt	180
tcttgcggcg	tgtaaagtc	tcacctctgt	ggatcagatg	tgcattgaga	aagaagccaa	240
caaacacat	aactgtgaaa	attttagctc	cagtgaaatc	cctgacatc	taccaaacac	300
aacagaattt	ttggaattca	gctttaattt	tttgccatca	attcacaata	gaaccttcag	360

10053354 10053355

<210> 18

<212> PRT

<400> 18

Gly Cys Lys Val Ile Thr Ser Trp Asp Gln Met Cys Ile Glu Lys Glu
20 25 30

Ala Asn Lys Thr Tyr Asn Cys Glu Asn Leu Gly Leu Ser Glu Ile Pro
35 40 45

Asp Thr Leu Pro Asn Thr Thr Glu Phe Leu Glu Phe Ser Phe Asn Phe
50 55 60

Leu Pro Thr Ile His Asn Arg Thr Phe Ser Asn Gln His Leu Leu Ala
65 70 75 80

Gly Leu Pro Val Leu Arg His Leu Asn Leu Lys Gly Asn His Phe Gln
85 90 95

Asp Gly Thr Ile Thr Lys Thr Asn Leu Leu Gln Thr Val Gly Ser Leu
100 105 110

Glu Val Leu Ile Leu Ser Ser Cys Gly Leu Leu Ser Ile Asp Gln Gln
115 120 125

Ala Phe His Ser Leu Gly Lys Met Ser His Val Asp Leu Ser His Asn
130 135 140

Ser Leu Thr Cys Asp Ser Ile Asp Ser Leu Ser His Leu Lys Gly Ile
145 150 155 160

Tyr Leu Asn Leu Ala Ala Asn Ser Ile Asn Ile Ile Ser Pro Arg Leu
165 170 175

Leu Pro Ile Leu Ser Gln Gln Ser Thr Ile Asn Leu Ser His Asn Pro
180 185 190

Leu Asp Cys Thr Cys Ser Asn Ile His Phe Leu Thr Trp Tyr Lys Glu
195 200 205

Asn Leu His Lys Leu Glu Gly Ser Glu Glu Thr Thr Cys Ala Asn Pro
 210 215 220
 Pro Ser Leu Arg Gly Val Lys Leu Ser Thr Ser Ile Trp Leu Pro Thr
 225 230 235 240
 Ala Leu Thr Ser Ser His Pro Val Ser Ser Leu Ser Cys Pro Ser Arg
 245 250 255
 Ala Pro Leu Ile
 260

<210> 19
 <211> 2349
 <212> DNA
 <213> Homo sapiens

<400> 19
 tattttaatc cccccccccc cccgagccat atgggggata cgccagcaac agacgccggc 60
 cgccaagatc tgcattcccta ggccacgcta agaccctggg gaagagcgca ggagcccggg 120
 agaagggctg gaaggagggg actggacgtg cggagaattc cccctaataa ggcagaagcc 180
 cccgccccca cctcagagct ccgctcgggc agagcgccct cctgcctgcc gctgctgcgg 240
 gcgcccacct cgcccagcca tgcaggccc ggccaccgac gcggggaaga tccctttctg 300
 cgacgccaaag gaagaaatcc gtgccgggct cgaaagctct gagggcgggc gcggcccggg 360
 gaggccaggc gcgcgcgggc agcggcagaa catcgtcttg aggaatgtcg tcctgatgag 420
 cttgctccac ttggggggcg tgtactccct ggtgctcacc cccaaagcca agccactcac 480
 tetgctctgg aattcctctt gcttcctcct ggccgctctg ggtgtgacag ctggtgcca 540
 tcgcttgttg agccacaggc cctaccgggc caagctgcct ctgaggatat ttctggctgt 600
 cgccaactec atggctttcc agaatgacat cttcgagtgg tccaggggacc accgagccca 660
 ccacaagtac tcagagacgg atgctgaccc ccacaatgcc cgcgggggct tcttcttctc 720
 ccatattggg tggctgtttg ttgcgaagca tcgagatgtt attgagaagg ggagaaagct 780
 tgacgtcact gacctgcttg ctgactctgt ggtccggatc cagagaaagt actataagat 840
 ctccgtgggt ctcagtgtgt ttgtgttccc cactgtgggt ccttggtaca tctggggaga 900
 gactgtgttg aattcctact tcttggcctc tattctccgc tataccatct cactcaacat 960
 cagctggctg gtcaacacgg ccgcccacat gtatggaaac cggccctatg acaagcacat 1020
 cagccctcgg cagaacccac tcgtcgtctt ggggtgccatt ggtgaaggct tccataatta 1080
 ccatcacacc ttcccttttg actactctgc gactgaattt ggcttaaat ttaaccacac 1140
 cacctgggtc attgatttca tgyctgtggt ggggctggcc actgaccyca aacgggcaac 1200
 caagccgatg atcgaggccc ggaaggccag gactggagac agcagtgtt gaacttgga 1260
 cagccatccc acatgtctgc cgttgcaacc tcggttcagt gctttggtta caatagctct 1320
 cttgtacatt ggatcgtggg agggggcaga ggggtgggaa ggaacgagtc aatgtggttt 1380
 gggaatgttt ttgtttatct caaaataatg ttgaaataca attatcaatg aaaaaacttt 1440
 cgtttttttt ttgtgttggt ttgttttttg agacagagtc tactctgtc acccaggctg 1500
 gactgcagtg gcgcagtcct ggctcactgc agcctccacc tacttggttc aagcaattct 1560
 cctgcctcag cctcctgagt agctgagatt acaggagcct gccaccacac ccagctaatt 1620
 tttttgtatt tttagtagag acagggtttc atcatgttgg ccagactggc ctcgaaattc 1680
 tgacctcagg caatccaccc gcctcggcct cccaaagagc tgggattaca ggcgtgagcc 1740
 accgcaccct gccgaaaaaa actttttttt tttagacgg aggtcgtctc tgtccccag 1800
 gtctggatgt gcagtggcga gatttcagct cactgacaag ctccgcctcc cgggggttcac 1860
 gccattctcc tgcctcagcc tcccagtag ctggggagcc agcgcgcca gcctaaaaaa 1920
 cttttcaggt caatattact acgatttaac ttacagagt tggacctgtg atttaatcgg 1980
 ctattagcta agaatagcgt caaattattc gtgtgtcatt gtggcttgaa cattgatggc 2040
 taacccttcc tggaaagggg tgaaggcaaa gtaatatctc ttttagtggg agttcaggag 2100
 accatgtggg ctccctttgtc taccatttta cccgatcatg tgttattaaa acacccttc 2160
 tggaggacaa agaggggtta cacacacag ggtcttgtcg ggcaacacag caggtccggg 2220
 gaccatcggg cggcgggggtc tcgcggtctc aactcacccg gcacacacga caacagacgg 2280

gctgatctcg gggtagcgga agcctcgctcg aaacaaatat cgccgttttg ctgcacgcca 2340
aactgctat 2349

<210> 20
<211> 330
<212> PRT
<213> Homo sapiens

<400> 20
Met Pro Gly Pro Ala Thr Asp Ala Gly Lys Ile Pro Phe Cys Asp Ala
1 5 10 15
Lys Glu Glu Ile Arg Ala Gly Leu Glu Ser Ser Glu Gly Gly Gly Gly
20 25 30
Pro Glu Arg Pro Gly Ala Arg Gly Gln Arg Gln Asn Ile Val Trp Arg
35 40 45
Asn Val Val Leu Met Ser Leu Leu His Leu Gly Ala Val Tyr Ser Leu
50 55 60
Val Leu Ile Pro Lys Ala Lys Pro Leu Thr Leu Leu Trp Ala Tyr Phe
65 70 75 80
Cys Phe Leu Leu Ala Ala Leu Gly Val Thr Ala Gly Ala His Arg Leu
85 90 95
Trp Ser His Arg Ser Tyr Arg Ala Lys Leu Pro Leu Arg Ile Phe Leu
100 105 110
Ala Val Ala Asn Ser Met Ala Phe Gln Asn Asp Ile Phe Glu Trp Ser
115 120 125
Arg Asp His Arg Ala His His Lys Tyr Ser Glu Thr Asp Ala Asp Pro
130 135 140
His Asn Ala Arg Arg Gly Phe Phe Phe Ser His Ile Gly Trp Leu Phe
145 150 155 160
Val Arg Lys His Arg Asp Val Ile Glu Lys Gly Arg Lys Leu Asp Val
165 170 175
Thr Asp Leu Leu Ala Asp Pro Val Val Arg Ile Gln Arg Lys Tyr Tyr
180 185 190
Lys Ile Ser Val Val Leu Met Cys Phe Val Val Pro Thr Leu Val Pro
195 200 205
Trp Tyr Ile Trp Gly Glu Ser Leu Trp Asn Ser Tyr Phe Leu Ala Ser
210 215 220
Ile Leu Arg Tyr Thr Ile Ser Leu Asn Ile Ser Trp Leu Val Asn Ser
225 230 235 240
Ala Ala His Met Tyr Gly Asn Arg Pro Tyr Asp Lys His Ile Ser Pro
245 250 255

Arg Gln Asn Pro Leu Val Ala Leu Gly Ala Ile Gly Glu Gly Phe His
 260 265 270

Asn Tyr His His Thr Phe Pro Phe Asp Tyr Ser Ala Ser Glu Phe Gly
 275 280 285

Leu Asn Phe Asn Pro Thr Thr Trp Phe Ile Asp Phe Met Cys Trp Leu
 290 295 300

Gly Leu Ala Thr Asp Arg Lys Arg Ala Thr Lys Pro Met Ile Glu Ala
 305 310 315 320

Arg Lys Ala Arg Thr Gly Asp Ser Ser Ala
 325 330

<210> 21
 <211> 1411
 <212> DNA
 <213> Homo sapiens

<400> 21
 caagtgtttg tgagtctgtg tgtctgagtt tgcaagtgag tgtgtgtctg tgtgccgggc 60
 gttgtgtctg attgggcaag gtccagggg tgctcgcttg agtcctgagc tgggacaacg 120
 ccttgactct tcttctttaa gacctccaag cctcagggac tctgggaatc aaggggtgtt 180
 tcttcttgtt ttgtttgagg aggaatgaga agggctctga tcgatctgcc caccggagcc 240
 tccgggcttc gacatgctgg aggagccccg gccgcggcct ccgccctcgg gcctcgcggy 300
 tctcctgttc ctggcgctgt gcagtcgggc tctaagcaat gagattctgg gcctgaagtt 360
 gcctggcgag ccgcgcgtga cggccaacac cgtgtgcttg acgctgtccg gcctgagcaa 420
 gcggcageta ggctgtgccc tgcgcaaccc cgacgtgacg gcgtccgcgc ttcagggtct 480
 gcacatcgcg gtccacagat gtcagcacca gctgcgcgac cagcgctgga actgctccgc 540
 gcttgaggggc ggcgcccgcc tgcgcacca cagegccatc ctcaagcgcg gtttccgaga 600
 aagtgtcttt tcttctcca tgcgtgctgc tggggtcatg cacgcagtag ccacggcctg 660
 cagcctgggc aagctggtga gctgtggctg tggctggaag ggcagtgggtg agcaggatcg 720
 gctgaggggc aaactgctgc agctgcaggc actgtcccga gggaaggctc cccgggacat 780
 ccaggcacga atgcgaatcc acaacaacag ggtggggcgc cagggtggtaa ctgaaaacct 840
 gaagcggaat tgcaagtgtc atggcacatc aggcagctgc cagttcaaga catgctggag 900
 ggcgcgccca gagttccggg cagtgggggc ggcgttgagg gagcggttg ggcgggccat 960
 cttcattgat acccacaacc gcaattctgg agccttccag ccccgctctgc gtccccgtcg 1020
 cctctcagga gagctggtct actttgagaa gtctcctgac ttctgtgagc gagacccac 1080
 tatgggctcc ccagggacaa ggggcggggc ctgaacaag accagccgcc tgttggtatg 1140
 ctgtggcagc ctgtgctgtg gccgtgggca caacgtgctc cggcagacac gagttgagcg 1200
 ctgccattgc cgcttccact ggtgctgcta tgtgctgtgt gatgagtga aggttacaga 1260
 gtgggtgaat gtgtgtaagt gaggtcaac cttaccttg ggctggggaa aaggactgtg 1320
 tgaaaggaag cgccttttca accctttgct atgatttct tccaagggtca ctcttgcccc 1380
 ctggaagctt aaagatctac ctggaaaaaa c 1411

<210> 22
 <211> 342
 <212> PRT
 <213> Homo sapiens

<400> 22
 Met Leu Glu Glu Pro Arg Pro Arg Pro Pro Pro Ser Gly Leu Ala Gly
 1 5 10 15

Leu Leu Phe Leu Ala Leu Cys Ser Arg Ala Leu Ser Asn Glu Ile Leu
 20 25 30

Gly Leu Lys Leu Pro Gly Glu Pro Pro Leu Thr Ala Asn Thr Val Cys
 35 40 45

Leu Thr Leu Ser Gly Leu Ser Lys Arg Gln Leu Gly Leu Cys Leu Arg
 50 55 60

Asn Pro Asp Val Thr Ala Ser Ala Leu Gln Gly Leu His Ile Ala Val
 65 70 75 80

His Glu Cys Gln His Gln Leu Arg Asp Gln Arg Trp Asn Cys Ser Ala
 85 90 95

Leu Glu Gly Gly Gly Arg Leu Pro His His Ser Ala Ile Leu Lys Arg
 100 105 110

Gly Phe Arg Glu Ser Ala Phe Ser Phe Ser Met Leu Ala Ala Gly Val
 115 120 125

Met His Ala Val Ala Thr Ala Cys Ser Leu Gly Lys Leu Val Ser Cys
 130 135 140

Gly Cys Gly Trp Lys Gly Ser Gly Glu Gln Asp Arg Leu Arg Ala Lys
 145 150 155 160

Leu Leu Gln Leu Gln Ala Leu Ser Arg Gly Lys Ala Pro Arg Asp Ile
 165 170 175

Gln Ala Arg Met Arg Ile His Asn Asn Arg Val Gly Arg Gln Val Val
 180 185 190

Thr Glu Asn Leu Lys Arg Lys Cys Lys Cys His Gly Thr Ser Gly Ser
 195 200 205

Cys Gln Phe Lys Thr Cys Trp Arg Ala Ala Pro Glu Phe Arg Ala Val
 210 215 220

Gly Ala Ala Leu Arg Glu Arg Val Gly Arg Ala Ile Phe Ile Asp Thr
 225 230 235 240

His Asn Arg Asn Ser Gly Ala Phe Gln Pro Arg Leu Arg Pro Arg Arg
 245 250 255

Leu Ser Gly Glu Leu Val Tyr Phe Glu Lys Ser Pro Asp Phe Cys Glu
 260 265 270

Arg Asp Pro Thr Met Gly Ser Pro Gly Thr Arg Gly Arg Ala Cys Asn
 275 280 285

Lys Thr Ser Arg Leu Leu Asp Gly Cys Gly Ser Leu Cys Cys Gly Arg
 290 295 300

Gly His Asn Val Leu Arg Gln Thr Arg Val Glu Arg Cys His Cys Arg
 305 310 315 320

Phe His Trp Cys Cys Tyr Val Leu Cys Asp Glu Cys Lys Val Thr Glu
 325 330 335

Trp Val Asn Val Cys Lys
 340

<210> 23
 <211> 1196
 <212> DNA
 <213> Homo sapiens

<400> 23
 gcgcgcgcgc tgggtcccgga gaagactcgc cagcaccagg ggggtggggga gtgcgagctg 60
 aaagctgctg gagagtgagc agccctagca gggatggaca tgatgctggt ggtgcagggt 120
 gcttggtgct cgaaccagtg gctggcggcg gtgctcctca gcctgtgctg cctgctaccc 180
 tectgcctcc cggctggaca gagtgtggac ttcccttggg cggccgtgga caacatgatg 240
 gtcagaaaaag gggacacggc ggtgcttagg tgttatttgg aagatggagc ttcaaagggt 300
 gcctggctga accggtcaag tattattttt gcgggagggtg ataagtggc agtggatcct 360
 cgagtttcaa tttcaacatt gaataaaagg gactacagcc tccagataca gaatgtagat 420
 gtgacagatg atggcccata cagtggttct gttcagactc aacatacacc cagaacaatg 480
 cagggtgcac taactgtgca agttcctcct aagatatatg acatctcaaa tgatatgacc 540
 gtcaatgaag gaaccaacgt cactcttact tgtttggcca ctgggaaacc agagccttcc 600
 atttcttggc gacacatctc cccatcagca aaaccatttg aaaatggaca atatttggac 660
 atttatggaa ttacaaggga ccaggctggg gaatatgaat gcagtgcgga aaatgatgtg 720
 tcattcccag atgtgaggaa agtaaaagtt gttgtcaact ttgctcctac tattcaggaa 780
 attaaatctg gcaccgtgac ccccggaagg agtggcctga taagatgtga aggtgcagggt 840
 gtgcgcgcct cagcctttga atggtacaaa ggagagaaga agctcttcaa tggccaacaa 900
 ggaattatta ttcaaaattt tagcacaaga tccattctca ctgttaccaa cgtgacacag 960
 gagcacttcg gcaattatac ttgtgtggct gccacaagc taggcacaac caatgcgagc 1020
 ctgcctctta accctccaag tacagcccag tatggaatta cggggagcgc tgatgttctt 1080
 ttctcctgct ggtaccttgt gttgacactg tctcttttca ccagcatatt ctacctgaag 1140
 aatgccattc tacaataaat tcaaagaccc ataaaaggct ttaaaggatt ctctga 1196

<210> 24
 <211> 354
 <212> PRT
 <213> Homo sapiens

<400> 24
 Met Asp Met Met Leu Leu Val Gln Gly Ala Cys Cys Ser Asn Gln Trp
 1 5 10 15
 Leu Ala Ala Val Leu Leu Ser Leu Cys Cys Leu Leu Pro Ser Cys Leu
 20 25 30
 Pro Ala Gly Gln Ser Val Asp Phe Pro Trp Ala Ala Val Asp Asn Met
 35 40 45
 Met Val Arg Lys Gly Asp Thr Ala Val Leu Arg Cys Tyr Leu Glu Asp
 50 55 60
 Gly Ala Ser Lys Gly Ala Trp Leu Asn Arg Ser Ser Ile Ile Phe Ala
 65 70 75 80

Gly Gly Asp Lys Trp Ser Val Asp Pro Arg Val Ser Ile Ser Thr Leu
85 90 95

Asn Lys Arg Asp Tyr Ser Leu Gln Ile Gln Asn Val Asp Val Thr Asp
100 105 110

Asp Gly Pro Tyr Thr Cys Ser Val Gln Thr Gln His Thr Pro Arg Thr
115 120 125

Met Gln Val His Leu Thr Val Gln Val Pro Pro Lys Ile Tyr Asp Ile
130 135 140

Ser Asn Asp Met Thr Val Asn Glu Gly Thr Asn Val Thr Leu Thr Cys
145 150 155 160

Leu Ala Thr Gly Lys Pro Glu Pro Ser Ile Ser Trp Arg His Ile Ser
165 170 175

Pro Ser Ala Lys Pro Phe Glu Asn Gly Gln Tyr Leu Asp Ile Tyr Gly
180 185 190

Ile Thr Arg Asp Gln Ala Gly Glu Tyr Glu Cys Ser Ala Glu Asn Asp
195 200 205

Val Ser Phe Pro Asp Val Arg Lys Val Lys Val Val Val Asn Phe Ala
210 215 220

Pro Thr Ile Gln Glu Ile Lys Ser Gly Thr Val Thr Pro Gly Arg Ser
225 230 235 240

Gly Leu Ile Arg Cys Glu Gly Ala Gly Val Pro Pro Pro Ala Phe Glu
245 250 255

Trp Tyr Lys Gly Glu Lys Lys Leu Phe Asn Gly Gln Gln Gly Ile Ile
260 265 270

Ile Gln Asn Phe Ser Thr Arg Ser Ile Leu Thr Val Thr Asn Val Thr
275 280 285

Gln Glu His Phe Gly Asn Tyr Thr Cys Val Ala Ala Asn Lys Leu Gly
290 295 300

Thr Thr Asn Ala Ser Leu Pro Leu Asn Pro Pro Ser Thr Ala Gln Tyr
305 310 315 320

Gly Ile Thr Gly Ser Ala Asp Val Leu Phe Ser Cys Trp Tyr Leu Val
325 330 335

Leu Thr Leu Ser Ser Phe Thr Ser Ile Phe Tyr Leu Lys Asn Ala Ile
340 345 350

Leu Gln

<210> 25
<211> 1165

<212> DNA

<213> Homo sapiens

<400> 25

```

cggggaagact cgccagcacc tggggggtggg ggagtgcgag ctgaaagctg ctggagagtg 60
agcagcccta gcagggatgg acatgatgct gttggtgcag agtgccctgtt gctcgaacca 120
gcggtctggcg gcggtgcttc tcagcctgtg ctgectgcta cctccttggc tcccggctgg 180
acaqaqtgtg qacttcccct gggcggccct ggacaacatg atggtcaqaa aaqqggacac 240
ggcgggtgctt aggtgttatt tgggaagatgg agcttcaaag ggtgcctggc tgaaccggtc 300
aaqtattatt tttgcqqaq qtqataaqtg qtcagtqat cctcqaqttt caatttcaac 360
attgaataaaa agggactaca gcctccagat acagaatgta gatgtgacag atgatggccc 420
atacacgtgt tctgttcaga ctcaacatac accagaaca atgcagggtg atctaactgt 480
gcaagttcct cctaagatat atgacatctc aaatgatatg accgtcaatg aaggaaccaa 540
cgtcactctt acttgtttgg ccaactggaa accagagcct tccatttctt ggcgacacat 600
ctccccatca gcaaaaccat ttgaaaatgg acaatatttg gacatttatg gaattacaag 660
ggaccaggct ggggaatatg aatgcagtgc ggaaaatgat gtgtcattcc cagatgtgag 720
gaaagtaaaa gttgtttgca actttgctcc tactattcag gaaattaaat ctggcaccgt 780
gacccccgga cgcagtggcc tgataagatg tgaaggtgca ggtgtgccgc ctccagcctt 840
tgaatggtac aaaggagaga agaagctctt caatggccaa caaggaatta ttattcaaaa 900
ttttagcaca agatccattc tcaactgttac caacgtgaca caggagcact tcggcaatta 960
tacttgtgtg gctgccaaca agctaggcac aaccaatgcg agcctgcctc ttaaccctcc 1020
aagtacagcc cagtatggaa ttaccgggag cgctgatgtt cttttctcct gctgggtacct 1080
tgtgttgaca ctgtcctctt tcaccagcat attctacctg aagaatgcca ttctacaata 1140
aattcaaaga cccataaaag gctttt                                     1165

```

<210> 26

<211> 354

<212> PRT

<213> Homo sapiens

<400> 26

```

Met Asp Met Met Leu Leu Val Gln Ser Ala Cys Cys Ser Asn Gln Arg
 1             5             10             15

Leu Ala Ala Val Leu Leu Ser Leu Cys Cys Leu Leu Pro Ser Cys Leu
      20             25             30

Pro Ala Gly Gln Ser Val Asp Phe Pro Trp Ala Ala Val Asp Asn Met
      35             40             45

Met Val Arg Lys Gly Asp Thr Ala Val Leu Arg Cys Tyr Leu Glu Asp
      50             55             60

Gly Ala Ser Lys Gly Ala Trp Leu Asn Arg Ser Ser Ile Ile Phe Ala
      65             70             75             80

Gly Gly Asp Lys Trp Ser Val Asp Pro Arg Val Ser Ile Ser Thr Leu
      85             90             95

Asn Lys Arg Asp Tyr Ser Leu Gln Ile Gln Asn Val Asp Val Thr Asp
      100             105             110

Asp Gly Pro Tyr Thr Cys Ser Val Gln Thr Gln His Thr Pro Arg Thr
      115             120             125

Met Gln Val His Leu Thr Val Gln Val Pro Pro Lys Ile Tyr Asp Ile

```


130

135

140

Ser Asn Asp Met Thr Val Asn Glu Gly Thr Asn Val Thr Leu Thr Cys
145 150 155 160

Leu Ala Thr Gly Lys Pro Glu Pro Ser Ile Ser Trp Arg His Ile Ser
165 170 175

Pro Ser Ala Lys Pro Phe Glu Asn Gly Gln Tyr Leu Asp Ile Tyr Gly
180 185 190

Ile Thr Arg Asp Gln Ala Gly Glu Tyr Glu Cys Ser Ala Glu Asn Asp
195 200 205

Val Ser Phe Pro Asp Val Arg Lys Val Lys Val Val Val Asn Phe Ala
210 215 220

Pro Thr Ile Gln Glu Ile Lys Ser Gly Thr Val Thr Pro Gly Arg Ser
225 230 235 240

Gly Leu Ile Arg Cys Glu Gly Ala Gly Val Pro Pro Pro Ala Phe Glu
245 250 255

Trp Tyr Lys Gly Glu Lys Lys Leu Phe Asn Gly Gln Gln Gly Ile Ile
260 265 270

Ile Gln Asn Phe Ser Thr Arg Ser Ile Leu Thr Val Thr Asn Val Thr
275 280 285

Gln Glu His Phe Gly Asn Tyr Thr Cys Val Ala Ala Asn Lys Leu Gly
290 295 300

Thr Thr Asn Ala Ser Leu Pro Leu Asn Pro Pro Ser Thr Ala Gln Tyr
305 310 315 320

Gly Ile Thr Gly Ser Ala Asp Val Leu Phe Ser Cys Trp Tyr Leu Val
325 330 335

Leu Thr Leu Ser Ser Phe Thr Ser Ile Phe Tyr Leu Lys Asn Ala Ile
340 345 350

Leu Gln

<210> 27

<211> 2069

<212> DNA

<213> Homo sapiens

<400> 27

gcttctaggc cttctcagta gatggagcta agtaatatat gtatatatac taaccacag 60
atataaatat gtctataatt atttctatat ttatccattc gtgtatatgt taagataaac 120
atgatggaga ccttccaaat ttgcttatgt tctttttcag cctatagacc agatataata 180
attagctttt cttctcttgc agattccaga gaggctctta tttcatatgt gccttccaga 240
acatctcttg tggattcac tacttggett ctgtgttcat gggagtcacc cctcatcatg 300
tctgcaggcc cccaggcaat gtgagtcagg ttgttttcca taatcactct aattggagtt 360

```

tggaggacac cggggccctg ttgtcttcag gccagaaaga ttatgttacg gtgcagttgc 420
agaatggtga gatctgggag ctctcaagggt gtagcaggaa taagagggag aacacatcga 480
gtttgggcta tgaatacact ggcagtaaga aagagtttcc ttgtgtggat ggctacatat 540
atgaccagaa cacatggaaa agcactgcgg tgacccagtg gaacctgggc tgtgaccgaa 600
aatggcttgc aatgctgatc cagccccat ttatgttttg agtccactg ggatcggtga 660
cttttggtta cttttctgac aggtctaggac gccgggtggg cttgtggggc acaagcagta 720
gcatgttttt gtttggaata gcagcggcgt ttgcagttga ttattacacc ttcattggctg 780
ctcgcctttt tcttgccatg qttgcaagtq gctatcttqt qgtqqqqttt qtctatqtqa 840
tggaattcat tggcatgaag tctcggacat gggcgctctgt ccatttgcac tccctttttg 900
caattqqaac cctqctqatg qctttqacag qatacttqat caqqacctqg tqcctttacc 960
agatgatcct ctccacagtg actgtccctt ttatcctgtg ctggtgggtg ctcccagaga 1020
cacctttttt gcttctctca gagggacgat atgaagaagc acaaaaaata gttgacatca 1080
tggccaagtg gaacagggca agctcctgta aactgtcaga acttttatca ctggacctac 1140
aaggctcgtg tagtaatagc cccactgaag ttcagaagca caacctatca tatctgtttt 1200
ataactggag cattacgaaa aggacactta ccgtttggct aatctgggtc actggaagtt 1260
tgggattcta ctcgttttcc ttgaattctg ttaacttagg aggcaatgaa tacttaaacc 1320
tcttctcctt ggggtgtagt gaaattcccg cctacacctt cgtgtgcac gccatggaca 1380
aggctgggag gagaacagtc ctggcctact ctcttttctg cagtgcactg gcctgtgggtg 1440
tcgttatggt gatccccag aaacattata ttttgggtgt ggtgacagct atggttggaa 1500
aatttgccat cggggcagca tttggcctca tttatcttta tacagctgag ctgtatccaa 1560
ccattgtaag atcgctggct gtgggaagcg gcagcatggt gtgtcgctg gccagcatcc 1620
tggcgcggtt ctctgtggac ctccagcaga tttggatctt cataccacag ttgtttgttg 1680
ggactatggc cctcctgagt ggagtgttaa cactaaagct tccagaaacc cttgggaaac 1740
ggctagcaac tacttgggag gaggtgcaa aactggagtc agagaatgaa agcaagtcaa 1800
gcaaattact tctcacaact aataatagt ggctggaaaa aacggaagcg attaccccca 1860
gggattcttg tcttgggtgaa taaatgtgcc atgcctgctg tctagcacct gaaatattat 1920
ttaccctaata gcctttgtat tagaggaatc ttattctcat ctcccatatg ttgtttgtat 1980
gtctttttta taaattttgt aagaaaattt taaagcaaat atgttataaa agaaataaaa 2040
actaagatga aaattctcag ttttaaaaa 2069

```

<210> 28
 <211> 534
 <212> PRT
 <213> Homo sapiens

<400> 28
 Met Gly Val Thr Pro His His Val Cys Arg Pro Pro Gly Asn Val Ser
 1 5 10 15
 Gln Val Val Phe His Asn His Ser Asn Trp Ser Leu Glu Asp Thr Gly
 20 25 30
 Ala Leu Leu Ser Ser Gly Gln Lys Asp Tyr Val Thr Val Gln Leu Gln
 35 40 45
 Asn Gly Glu Ile Trp Glu Leu Ser Arg Cys Ser Arg Asn Lys Arg Glu
 50 55 60
 Asn Thr Ser Ser Leu Gly Tyr Glu Tyr Thr Gly Ser Lys Lys Glu Phe
 65 70 75 80
 Pro Cys Val Asp Gly Tyr Ile Tyr Asp Gln Asn Thr Trp Lys Ser Thr
 85 90 95
 Ala Val Thr Gln Trp Asn Leu Val Cys Asp Arg Lys Trp Leu Ala Met
 100 105 110

10053534 10053535

Leu Ile Tyr Leu Tyr Thr Ala Glu Leu Tyr Pro Thr Ile Val Arg Ser
420 425 430

Leu Ala Val Gly Ser Gly Ser Met Val Cys Arg Leu Ala Ser Ile Leu
435 440 445

Ala Pro Phe Ser Val Asp Leu Ser Ser Ile Trp Ile Phe Ile Pro Gln
450 455 460

Leu Phe Val Gly Thr Met Ala Leu Leu Ser Gly Val Leu Thr Leu Lys
465 470 475 480

Leu Pro Glu Thr Leu Gly Lys Arg Leu Ala Thr Thr Trp Glu Glu Ala
485 490 495

Ala Lys Leu Glu Ser Glu Asn Glu Ser Lys Ser Ser Lys Leu Leu Leu
500 505 510

Thr Thr Asn Asn Ser Gly Leu Glu Lys Thr Glu Ala Ile Thr Pro Arg
515 520 525

Asp Ser Gly Leu Gly Glu
530

<210> 29
<211> 1666
<212> DNA
<213> Homo sapiens

<400> 29
ttccagagag tctctatatt catatgtgcc ttccagaaca tctcttgttg tattcactac 60
ttggcttctg tgttcatggg agtcacccct catcatgtct gcaggccccc aggcaatgtg 120
agtcaggttg ttttccataa tcaacttaat tggagtttgg aggacaccgg ggcctgttg 180
tcttcaggcc agaaagatta tgttacgggtg cagttgcaga atgggtgagat ctgggagctc 240
tcaagggtga gcaggaataa gagggagaac acatcgagtt tgggctatga atactactggc 300
agtaagaaag agtttctctg tgtggatggc tacatatatg accagaacac atggaaaagc 360
actgcggtga cccagtgga cctggtctgt gaccgaaaat ggcttgcaat gctgatccag 420
ccccatttta tgtttggagt cctactggga tccgtgactt ttggctactt ttctgacagg 480
cttttttgcc tatatgtgat ttgcaatggg gtcagactcc tcaatagtta taaatgtgac 540
cttgaatata aatccctatt atttgttttt caggttgcaa gtggctatct tgtggtgggg 600
tttgtctatg tgatggaatt cattggcatg aagtctcgga catgggcgtc tgtccatttg 660
cattcctttt ttgcagttgg aaccctgctg gtggctttga caggatactt ggtcaggacc 720
tggtggcttt accagatgat cctctccaca gtgactgtcc cttttatcct gtgctgttg 780
gtgctcccag agacaccttt ttggcttctc tcagagggac gatatgaaga agcacaacaa 840
atagttgaca tcatggccaa gtggaacagg gcaagctcct gtaaaactgtc agaactttta 900
tcaactggacc tacaagggtcc tgtagtaat agccccactg aagttcagaa gcacaaccta 960
tcatactgtg tttataactg gagcattacg aaaaggacac ttaccgtttg gctaactctg 1020
ttcactggaa gtttgggatt ctactcgttt tccttgaatt ctgttaactt aggaggcaat 1080
gaataactta accctcttcc cacagggtga gtggaaatc ccgcctacac cttcgtgtgc 1140
atcgccatgg acaagggtcg gaggagaaca gtccctggcct actctctttt ctgcagtgc 1200
ctggcctgtg gtgtcggttat ggtgatccc cagggtgagtt atcttctggg tgtggtgaca 1260
gctatggttg gaaaatttgc catcggggca gcatttggcc tcatatctct ttatacagct 1320
gagctgtatc caaccattgt aagggtcgctg gctgtgggaa gcggcagcat ggtgtgtcgc 1380
ctggccagca tcttggcgcc gttctctgtg gacctcagca gcatttggat cttcatacca 1440
cagttgtttg ttgggactat ggcctcctcg agtggagtg taacactaaa gcttccagaa 1500

[illegible]

```
<210> 30
<211> 526
<212> PRT
<213> Homo sapiens
```

<400> 30
Met Gly Val Thr Pro His His Val Cys Arg Pro Pro Gly Asn Val Ser
1 5 10 15

Gln Val Val Phe His Asn His Ser Asn Trp Ser Leu Glu Asp Thr Gly
20 25 30

Ala Leu Leu Ser Ser Gly Gln Lys Asp Tyr Val Thr Val Gln Leu Gln
35 40 45

Asn Gly Glu Ile Trp Glu Leu Ser Arg Cys Ser Arg Asn Lys Arg Glu
50 55 60

Asn Thr Ser Ser Leu Gly Tyr Glu Tyr Thr Gly Ser Lys Lys Glu Phe
65 70 75 80

Pro Cys Val Asp Gly Tyr Ile Tyr Asp Gln Asn Thr Trp Lys Ser Thr
85 90 95

Ala Val Thr Gln Trp Asn Leu Val Cys Asp Arg Lys Trp Leu Ala Met
100 105 110

Leu Ile Gln Pro Leu Phe Met Phe Gly Val Leu Leu Gly Ser Val Thr
115 120 125

Phe Gly Tyr Phe Ser Asp Arg Leu Phe Cys Leu Tyr Val Ile Cys Asn
130 135 140

Gly Val Arg Leu Leu Asn Ser Tyr Lys Cys Asp Leu Glu Tyr Lys Ser
145 150 155 160

Leu Leu Phe Val Phe Gln Val Ala Ser Gly Tyr Leu Val Val Gly Phe
165 170 175

Val Tyr Val Met Glu Phe Ile Gly Met Lys Ser Arg Thr Trp Ala Ser
180 185 190

Val His Leu His Ser Phe Phe Ala Val Gly Thr Leu Leu Val Ala Leu
195 200 205

Thr Gly Tyr Leu Val Arg Thr Trp Trp Leu Tyr Gln Met Ile Leu Ser
210 215 220

Thr Val Thr Val Pro Phe Ile Leu Cys Cys Trp Val Leu Pro Glu Thr
225 230 235 240

Pro Phe Trp Leu Leu Ser Glu Gly Arg Tyr Glu Glu Ala Gln Lys Ile

	245		250		255
Val Asp Ile Met	Ala Lys Trp Asn Arg	Ala Ser Ser Cys	Lys Leu Ser		
	260	265	270		
Glu Leu Leu Ser	Leu Asp Leu Gln Gly	Pro Val Ser Asn	Ser Pro Thr		
	275	280	285		
Glu Val Gln Lys	His Asn Leu Ser Tyr	Leu Phe Tyr Asn	Trp Ser Ile		
	290	295	300		
Thr Lys Arg Thr	Leu Thr Val Trp	Leu Ile Trp Phe	Thr Gly Ser Leu		
305	310	315	320		
Gly Phe Tyr Ser	Phe Ser Leu Asn	Ser Val Asn Leu	Gly Gly Asn Glu		
	325	330	335		
Tyr Leu Asn Leu	Phe Leu Thr Gly	Val Val Glu Ile	Pro Ala Tyr Thr		
	340	345	350		
Phe Val Cys Ile	Ala Met Asp Lys	Val Gly Arg Arg	Thr Val Leu Ala		
	355	360	365		
Tyr Ser Leu Phe	Cys Ser Ala Leu	Ala Cys Gly Val	Val Met Val Ile		
	370	375	380		
Pro Gln Val Ser	Tyr Leu Leu Gly	Val Val Thr Ala	Met Val Gly Lys		
385	390	395	400		
Phe Ala Ile Gly	Ala Ala Phe Gly	Leu Ile Tyr Leu	Tyr Thr Ala Glu		
	405	410	415		
Leu Tyr Pro Thr	Ile Val Arg Ser	Leu Ala Val Gly	Ser Gly Ser Met		
	420	425	430		
Val Cys Arg Leu	Ala Ser Ile Leu	Ala Pro Phe Ser	Val Asp Leu Ser		
	435	440	445		
Ser Ile Trp Ile	Phe Ile Pro Gln	Leu Phe Val Gly	Thr Met Ala Leu		
	450	455	460		
Leu Ser Gly Val	Leu Thr Leu Lys	Leu Pro Glu Thr	Leu Gly Lys Arg		
465	470	475	480		
Leu Ala Thr Thr	Trp Glu Glu Ala	Ala Lys Leu Glu	Ser Glu Asn Glu		
	485	490	495		
Ser Lys Ser Ser	Lys Leu Leu Leu	Thr Thr Asn Asn	Ser Gly Leu Glu		
	500	505	510		
Lys Thr Glu Ala	Ile Thr Pro Arg	Asp Ser Gly Leu	Gly Glu		
	515	520	525		

<210> 31
 <211> 1192
 <212> DNA

100-36344-113

<400> 31

ttgctgagggt	gcatttatgt	ttcagaacca	cggggaggaa	ctggggccatt	ctaaccaccg	60
ttgctaccat	gctggccacc	cgccctccca	gacccctgtc	acggctccca	ggaaaaacc	120
taagtgcctg	tgatagagaa	aatggagcaa	ggcgccact	attgcttggt	tctacttcc	180
ttatccgat	tggccgtcgg	acttatgcc	gtgcggcgga	gccggtgagt	ggaaaagctg	240
tccgtqgtcac	aggtctgtac	tctgtgattt	ggttctcatt	ggtcgaagcat	ctgcatcga	300
aaggcttcct	tgtgtttgct	ggctgcttga	tgaaggacaa	aggccatgat	ggggtcaagg	360
agctqacacg	cctaaacagt	gacgatttga	gaaccgtcca	gctcaatgtc	tgcacacacg	420
aagaggtgga	gaaagtgggt	gagattgtcc	gctcgagcct	gaaggaccct	gagaaaggta	480
tgtggggcct	cgttaacaat	gccggcatct	caacgttcgg	ggaggtggag	ttcaccagcc	540
tgtagaccta	caagcagggt	gcagaagtga	acctttgggg	cacagtcggg	atgacgaaat	600
cctttctccc	cctcatccga	agggtcaaa	gtcgctcgt	caatatacgc	agcatgctgg	660
gccgcatggc	caaccgggcc	cgctccccgt	actgcatcac	caagttcggg	gtagaggctt	720
tctcgactg	cctgcgctat	gagatgtacc	ccctgggcgt	gaaggtcagc	gtggtggagc	780
ccggcaactt	catcgctgcc	accagccttt	acagccctga	gagcattcag	gccatcgcca	840
agaagatgtg	ggaggagctg	cctgaggctg	tgcgcaagga	ctacggcaag	aagtactttg	900
atgaaaagat	cgccaagatg	gagacctact	gcagcagtg	ctccacagac	acgtcccttg	960
tcacgatgc	tgtcacacac	gccctgaccg	ccaccacccc	ctacaccccg	taccacccc	1020
tggactatga	ctggtggctg	cgaatgcaga	tcatgaccca	cttgcttgga	gccatctccg	1080
acatgatcta	catccgctga	agagtctcgc	tgtggcctct	gtcagggatc	ctggtggaa	1140
ggggaggggg	gggaggaacc	catatagtca	actcttgatt	atccacgtgt	gg	1192

<210> 32

<211> 343

<212> PRT

<213> Homo sapiens

<400> 32

Met Leu Ala Thr Arg Leu Ser Arg Pro Leu Ser Arg Leu Pro Gly Lys
1 5 10 15

Thr Leu Ser Ala Cys Asp Arg Glu Asn Gly Ala Arg Arg Pro Leu Leu
20 25 30

Leu Gly Ser Thr Ser Phe Ile Pro Ile Gly Arg Arg Thr Tyr Ala Ser
35 40 45

Ala Ala Glu Pro Val Ser Gly Lys Ala Val Leu Val Thr Gly Cys Asp
50 55 60

Ser Gly Phe Gly Phe Ser Leu Ala Lys His Leu His Ser Lys Gly Phe
65 70 75 80

Leu Val Phe Ala Gly Cys Leu Met Lys Asp Lys Gly His Asp Gly Val
85 90 95

Lys Glu Leu Asp Ser Leu Asn Ser Asp Arg Leu Arg Thr Val Gln Leu
100 105 110

Asn Val Cys Ser Ser Glu Glu Val Glu Lys Val Val Glu Ile Val Arg
115 120 125

Ser Ser Leu Lys Asp Pro Glu Lys Gly Met Trp Gly Leu Val Asn Asn
130 135 140

ccttttctccc	cctcatccga	agggccaaag	gccgcgtcgt	caatatcagc	agcatgctgg	660
gccgcgatggc	caacccggcc	cgctccccgt	actgcatac	caagttcggg	gtagaggctt	720
tctcggactg	cctgcgtat	gagatgtacc	cctggggcgt	gaaggtcagc	gtggtggagc	780
ccggcaactt	catcgtgcc	accagccttt	acagccctga	gagcattcag	gccatcgcca	840
agaagatgtg	ggaggagctg	cctgaggtcg	tgcgcaagga	ctacggcaag	aagtactttg	900
atgaaaagat	cgccaagatg	gagacctact	gcagcagtgg	ctccacagac	acgtcccctg	960
tcategatgc	tgtcacacac	gccctgaccg	ccaccacccc	ctacacccgc	taccacccca	1020
tqgactacta	ctqgtqgctc	cqaatgcaga	tcatqaccca	cttgcctqga	gccatctccc	1080
acgatgacta	catcgcgtga	agagttctgc	tgtggcctct	gtcagggatt	cctggtggaa	1140
qqqqagqqqa	qqqagqaacc	catata				1166

```
<210> 34
<211> 343
<212> PRT
<213> Homo sapiens
```

Met Leu Ala Thr Arg Leu Ser Arg Pro Leu Ser Arg Leu Pro Gly Lys
1 5 10 15

Leu Gly Ser Thr Ser Phe Ile Pro Ile Gly Arg Arg Thr Tyr Ala Ser
35 40 45

Ser Gly Phe Gly Phe Ser Leu Ala Lys His Leu His Ser Lys Gly Phe
65 70 75 80

Lys Glu Leu Asp Ser Leu Asn Ser Asp Arg Leu Arg Thr Val Gln Leu
100 105 110

Ser Ser Leu Lys Asp Pro Glu Lys Gly Met Trp Gly Leu Val Asn Asn
130 135 140

Tyr Lys Gln Val Ala Glu Val Asn Leu Trp Gly Thr Val Arg Met Thr
165 170 175

Ile Ser Ser Met Leu Gly Arg Met Ala Asn Pro Ala Arg Ser Pro Tyr
195 200 205

132996 132997 132998 132999 133000

Glu Met Tyr Pro Leu Gly Val Lys Val Ser Val Val Glu Pro Gly Asn
225 230 235 240

Phe Ile Ala Ala Thr Ser Leu Tyr Ser Pro Glu Ser Ile Gln Ala Ile
245 250 255

Ala Lys Lys Met Trp Glu Glu Leu Pro Glu Val Val Arg Lys Asp Tyr
260 265 270

Gly Lys Lys Tyr Phe Asp Glu Lys Ile Ala Lys Met Glu Thr Tyr Cys
275 280 285

Ser Ser Gly Ser Thr Asp Thr Ser Pro Val Ile Asp Ala Val Thr His
290 295 300

Ala Leu Thr Ala Thr Thr Pro Tyr Thr Arg Tyr His Pro Met Asp Tyr
305 310 315 320

Tyr Trp Trp Leu Arg Met Gln Ile Met Thr His Leu Pro Gly Ala Ile
325 330 335

Ser Asp Met Ile Tyr Ile Arg
340

<210> 35

<211> 8675

<212> DNA

<213> Homo sapiens

<400> 35

ttgggctctcg	ggccagaatt	cggcacgagg	ggtctggagc	ttggaggaga	agtctgaact	60
aaggataaac	taaagagagg	ccaatgagac	ttgaaccctg	agcctaagtt	gtcaccagca	120
ggactgatgt	gcacacagaa	ggaatgaagt	atggatgtga	aagaacgcag	gccttactgc	180
tccctgacca	agagcagacg	agagaaggaa	cggcgctaca	caaatctctc	cgagacaaat	240
gaggagtgc	gggtacccac	acagaagtcc	tacagttcca	gcgagacat	gaaagctttt	300
gatcatgatt	cctcgcggt	gctttacggc	aacagagtga	aggatttggt	tcacagagaa	360
gcagcagagt	tcactagaca	aggacagaat	tttaccctaa	ggcagttagg	agtttgtgaa	420
cgcgaactc	gaagaggact	ggcattttgt	gcggaatgg	ggctccctca	cagaggttac	480
tctatcagtg	cagggtcaga	tgctgatact	gaaaatgaag	cagtgatgtc	cccagagcat	540
gccatgagac	tttggggcag	gggggtcaaa	tcaggccgca	gctcctgcct	gtcaagtcgg	600
tccaactcag	ccctcaccct	gacagatacg	gagcacgaaa	acaagtcgga	cagtggagaat	660
gagcaactcg	caagcaatca	aggccagtet	accctgcagc	ccttgccgcc	ttcccataag	720
cagcactctg	cacagcatca	tccatccatc	actttctctc	acagaaactc	cctgaccaat	780
agaaggaacc	agagtcgggc	ccgcgcggct	gctttgcccg	ccgagctgca	aaccacacc	840
gagtcgctcc	agctgcagga	cagctgggtc	cttggcagta	atgtaccact	ggaaagcagg	900
catcttcctat	tcaaaacagg	aacaggtaca	acgccactgt	tcagtactgc	aaccccgagg	960
tacacaatgg	catctggctc	tgtttattca	ccacctactc	ggccactacc	tagaaacacc	1020
ctatcaagaa	gtgcttttaa	attcaagaag	tcttcaaagt	actgtagctg	gaaatgcact	1080
gcactgtgtg	ccgtaggggt	ctcggtgctc	ctggcaatac	tcctgtctta	ttttatagca	1140
atgcactctc	ttggcctcaa	ctggcagcta	cagcagactg	aaaatgacac	atttgagaat	1200
ggaaaagtga	attctgatac	catgccaaac	aacactgtgt	cattaccctc	tgagagcaat	1260
ggaaaaattag	gtggatttac	gcaagaaaat	aacaccatag	attccggaga	acttgatatt	1320
ggccgaagag	caattcaaga	gattcctccc	gggatettct	ggagatcaca	gctcttcatt	1380

54

Glu	Leu	Gln	Thr	Thr	Pro	Glu	Ser	Val	Gln	Leu	Gln	Asp	Ser	Trp	Val
225					230					235					240
Leu	Gly	Ser	Asn	Val	Pro	Leu	Glu	Ser	Arg	His	Phe	Leu	Phe	Lys	Thr
				245					250					255	
Gly	Thr	Gly	Thr	Thr	Pro	Leu	Phe	Ser	Thr	Ala	Thr	Pro	Gly	Tyr	Thr
			260					265					270		
Met	Ala	Ser	Gly	Ser	Val	Tyr	Ser	Pro	Pro	Thr	Arg	Pro	Leu	Pro	Arg
		275					280					285			
Asn	Thr	Leu	Ser	Arg	Ser	Ala	Phe	Lys	Phe	Lys	Lys	Ser	Ser	Lys	Tyr
	290					295					300				
Cys	Ser	Trp	Lys	Cys	Thr	Ala	Leu	Cys	Ala	Val	Gly	Val	Ser	Val	Leu
305					310					315					320
Leu	Ala	Ile	Leu	Leu	Ser	Tyr	Phe	Ile	Ala	Met	His	Leu	Phe	Gly	Leu
				325					330					335	
Asn	Trp	Gln	Leu	Gln	Gln	Thr	Glu	Asn	Asp	Thr	Phe	Glu	Asn	Gly	Lys
			340					345					350		
Val	Asn	Ser	Asp	Thr	Met	Pro	Thr	Asn	Thr	Val	Ser	Leu	Pro	Ser	Gly
		355					360					365			
Asp	Asn	Gly	Lys	Leu	Gly	Gly	Phe	Thr	Gln	Glu	Asn	Asn	Thr	Ile	Asp
	370					375					380				
Ser	Gly	Glu	Leu	Asp	Ile	Gly	Arg	Arg	Ala	Ile	Gln	Glu	Ile	Pro	Pro
385					390					395					400
Gly	Ile	Phe	Trp	Arg	Ser	Gln	Leu	Phe	Ile	Asp	Gln	Pro	Gln	Phe	Leu
				405					410					415	
Lys	Phe	Asn	Ile	Ser	Leu	Gln	Lys	Asp	Ala	Leu	Ile	Gly	Val	Tyr	Gly
			420					425					430		
Arg	Lys	Lys	Leu	Pro	Pro	Ser	His	Thr	Gln	Ser	Ser	Pro	Gln	Tyr	Asp
		435					440					445			
Phe	Val	Glu	Leu	Leu	Asp	Gly	Ser	Arg	Leu	Ile	Ala	Arg	Glu	Gln	Arg
	450					455					460				
Ser	Leu	Leu	Glu	Thr	Glu	Arg	Ala	Gly	Arg	Gln	Ala	Arg	Ser	Val	Ser
465					470					475					480
Leu	His	Glu	Ala	Gly	Phe	Ile	Gln	Tyr	Leu	Asp	Ser	Gly	Ile	Trp	His
				485					490					495	
Leu	Ala	Phe	Tyr	Asn	Asp	Gly	Lys	Asn	Ala	Glu	Gln	Val	Ser	Phe	Asn
			500					505					510		
Thr	Ile	Val	Ile	Glu	Ser	Val	Val	Glu	Cys	Pro	Arg	Asn	Cys	His	Gly
		515					520					525			

Asn Gly Glu Cys Val Ser Gly Thr Cys His Cys Phe Pro Gly Phe Leu
 530 535 540
 Gly Pro Asp Cys Ser Arg Ala Ala Cys Pro Val Leu Cys Ser Gly Asn
 545 550 555 560
 Gly Gln Tyr Ser Lys Gly Arg Cys Leu Cys Phe Ser Gly Trp Lys Gly
 565 570 575
 Thr Glu Cys Asp Val Pro Thr Thr Gln Cys Ile Asp Pro Gln Cys Gly
 580 585 590
 Gly Arg Gly Ile Cys Ile Met Gly Ser Cys Ala Cys Ser Ser Gly Tyr
 595 600 605
 Lys Gly Glu Ser Cys Glu Glu Ala Asp Cys Ile Asp Pro Gly Cys Ser
 610 615 620
 Asn His Gly Val Cys Ile His Gly Glu Cys His Cys Ser Pro Gly Trp
 625 630 635 640
 Gly Gly Ser Asn Cys Glu Ile Leu Lys Thr Met Cys Pro Asp Gln Cys
 645 650 655
 Ser Gly His Gly Thr Tyr Leu Gln Glu Ser Gly Ser Cys Thr Cys Asp
 660 665 670
 Pro Asn Trp Thr Gly Pro Asp Cys Ser Asn Glu Ile Cys Ser Val Asp
 675 680 685
 Cys Gly Ser His Gly Val Cys Met Gly Gly Thr Cys Arg Cys Glu Glu
 690 695 700
 Gly Trp Thr Gly Pro Ala Cys Asn Gln Arg Ala Cys His Pro Arg Cys
 705 710 715 720
 Ala Glu His Gly Thr Cys Lys Asp Gly Lys Cys Glu Cys Ser Gln Gly
 725 730 735
 Trp Asn Gly Glu His Cys Thr Ile Ala His Tyr Leu Asp Lys Ile Val
 740 745 750
 Lys Asp Lys Ile Gly Tyr Lys Glu Gly Cys Pro Gly Leu Cys Asn Ser
 755 760 765
 Asn Gly Arg Cys Thr Leu Asp Gln Asn Gly Gly His Cys Val Cys Gln
 770 775 780
 Pro Gly Trp Arg Gly Ala Gly Cys Asp Val Ala Met Glu Thr Leu Cys
 785 790 795 800
 Thr Asp Ser Lys Asp Asn Glu Gly Asp Gly Leu Ile Asp Cys Met Asp
 805 810 815
 Pro Asp Cys Cys Leu Gln Ser Ser Cys Gln Asn Gln Pro Tyr Cys Arg
 820 825 830

Gly Leu Pro Asp Pro Gln Asp Ile Ile Ser Gln Ser Leu Gln Ser Pro
835 840 845

Ser Gln Gln Ala Ala Lys Ser Phe Tyr Asp Arg Ile Ser Phe Leu Ile
850 855 860

Gly Ser Asp Ser Thr His Val Ile Pro Gly Glu Ser Pro Phe Asn Lys
865 870 875 880

Ser Leu Ala Ser Val Ile Arg Gly Gln Val Leu Thr Ala Asp Gly Thr
885 890 895

Pro Leu Ile Gly Val Asn Val Ser Phe Phe His Tyr Pro Glu Tyr Gly
900 905 910

Tyr Thr Ile Thr Arg Gln Asp Gly Met Phe Asp Leu Val Ala Asn Gly
915 920 925

Gly Ala Ser Leu Thr Leu Val Phe Glu Arg Ser Pro Phe Leu Thr Gln
930 935 940

Tyr His Thr Val Trp Ile Pro Trp Asn Val Phe Tyr Val Met Asp Thr
945 950 955 960

Leu Val Met Glu Lys Glu Glu Asn Asp Ile Pro Ser Cys Asp Leu Ser
965 970 975

Gly Phe Val Arg Pro Asn Pro Ile Ile Val Ser Ser Pro Leu Ser Thr
980 985 990

Phe Phe Arg Ser Ser Pro Glu Asp Ser Pro Ile Ile Pro Glu Thr Gln
995 1000 1005

Val Leu His Glu Glu Thr Thr Ile Pro Gly Thr Asp Leu Lys Leu Ser
1010 1015 1020

Tyr Leu Ser Ser Arg Ala Ala Gly Tyr Lys Ser Val Leu Lys Ile Thr
1025 1030 1035 1040

Met Thr Gln Ser Ile Ile Pro Phe Asn Leu Met Lys Val His Leu Met
1045 1050 1055

Val Ala Val Val Gly Arg Leu Phe Gln Lys Trp Phe Pro Ala Ser Pro
1060 1065 1070

Asn Leu Ala Tyr Thr Phe Ile Trp Asp Lys Thr Asp Ala Tyr Asn Gln
1075 1080 1085

Lys Val Tyr Gly Leu Ser Glu Ala Val Val Ser Val Gly Tyr Glu Tyr
1090 1095 1100

Glu Ser Cys Leu Asp Leu Thr Leu Trp Glu Lys Arg Thr Ala Ile Leu
1105 1110 1115 1120

Gln Gly Tyr Glu Leu Asp Ala Ser Asn Met Gly Gly Trp Thr Leu Asp
1125 1130 1135

Lys	His	Val	Leu	Asp	Val	Gln	Asn	Gly	Ile	Leu	Tyr	Lys	Gly	Asn	
		1140						1145					1150		
Gly	Glu	Asn	Gln	Phe	Ile	Ser	Gln	Gln	Pro	Pro	Val	Val	Ser	Ser	Ile
		1155					1160					1165			
Met	Gly	Asn	Gly	Arg	Arg	Arg	Ser	Ile	Ser	Cys	Pro	Ser	Cys	Asn	Gly
	1170					1175					1180				
Gln	Ala	Asp	Gly	Asn	Lys	Leu	Leu	Ala	Pro	Val	Ala	Leu	Ala	Cys	Gly
1185					1190					1195					1200
Ile	Asp	Gly	Ser	Leu	Tyr	Val	Gly	Asp	Phe	Asn	Tyr	Val	Arg	Arg	Ile
				1205					1210					1215	
Phe	Pro	Ser	Gly	Asn	Val	Thr	Ser	Val	Leu	Glu	Leu	Arg	Asn	Lys	Asp
			1220					1225					1230		
Phe	Arg	His	Ser	Ser	Asn	Pro	Ala	His	Arg	Tyr	Tyr	Leu	Ala	Thr	Asp
	1235						1240					1245			
Pro	Val	Thr	Gly	Asp	Leu	Tyr	Val	Ser	Asp	Thr	Asn	Thr	Arg	Arg	Ile
	1250					1255					1260				
Tyr	Arg	Pro	Lys	Ser	Leu	Thr	Gly	Ala	Lys	Asp	Leu	Thr	Lys	Asn	Ala
1265					1270					1275					1280
Glu	Val	Val	Ala	Gly	Thr	Gly	Glu	Gln	Cys	Leu	Pro	Phe	Asp	Glu	Ala
				1285					1290					1295	
Arg	Cys	Gly	Asp	Gly	Gly	Lys	Ala	Val	Glu	Ala	Thr	Leu	Met	Ser	Pro
			1300					1305					1310		
Lys	Gly	Met	Ala	Val	Asp	Lys	Asn	Gly	Leu	Ile	Tyr	Phe	Val	Asp	Gly
	1315						1320					1325			
Thr	Met	Ile	Arg	Lys	Val	Asp	Gln	Asn	Gly	Ile	Ile	Ser	Thr	Leu	Leu
	1330					1335					1340				
Gly	Ser	Asn	Asp	Leu	Thr	Ser	Ala	Arg	Pro	Leu	Thr	Cys	Asp	Thr	Ser
1345					1350					1355					1360
Met	His	Ile	Ser	Gln	Val	Arg	Leu	Glu	Trp	Pro	Thr	Asp	Leu	Ala	Ile
				1365					1370					1375	
Asn	Pro	Met	Asp	Asn	Ser	Ile	Tyr	Val	Leu	Asp	Asn	Asn	Val	Val	Leu
			1380					1385					1390		
Gln	Ile	Thr	Glu	Asn	Arg	Gln	Val	Arg	Ile	Ala	Ala	Gly	Arg	Pro	Met
	1395						1400					1405			
His	Cys	Gln	Val	Pro	Gly	Val	Glu	Tyr	Pro	Val	Gly	Lys	His	Ala	Val
	1410					1415					1420				
Gln	Thr	Thr	Leu	Glu	Ser	Ala	Thr	Ala	Ile	Ala	Val	Ser	Tyr	Ser	Gly
1425					1430						1435				1440

Val Leu Tyr Ile Thr Glu Thr Asp Glu Lys Lys Ile Asn Arg Ile Arg
1445 1450 1455

Gln Val Thr Thr Asp Gly Glu Ile Ser Leu Val Ala Gly Ile Pro Ser
1460 1465 1470

Glu Cys Asp Cys Lys Asn Asp Ala Asn Cys Asp Cys Tyr Gln Ser Gly
1475 1480 1485

Asp Gly Tyr Ala Lys Asp Ala Lys Leu Ser Ala Pro Ser Ser Leu Ala
1490 1495 1500

Ala Ser Pro Asp Gly Thr Leu Tyr Ile Ala Asp Leu Gly Asn Ile Arg
1505 1510 1515 1520

Ile Arg Ala Val Ser Lys Asn Lys Pro Leu Leu Asn Ser Met Asn Phe
1525 1530 1535

Tyr Glu Val Ala Ser Pro Thr Asp Gln Glu Leu Tyr Ile Phe Asp Ile
1540 1545 1550

Asn Gly Thr His Gln Tyr Thr Val Ser Leu Val Thr Gly Asp Tyr Leu
1555 1560 1565

Tyr Asn Phe Ser Tyr Ser Asn Asp Asn Asp Ile Thr Ala Val Thr Asp
1570 1575 1580

Ser Asn Gly Asn Thr Leu Arg Ile Arg Arg Asp Pro Asn Arg Met Pro
1585 1590 1595 1600

Val Arg Val Val Ser Pro Asp Asn Gln Val Ile Trp Leu Thr Ile Gly
1605 1610 1615

Thr Asn Gly Cys Leu Lys Gly Met Thr Ala Gln Gly Leu Glu Leu Val
1620 1625 1630

Leu Phe Thr Tyr His Gly Asn Ser Gly Leu Leu Ala Thr Lys Ser Asp
1635 1640 1645

Glu Thr Gly Trp Thr Thr Phe Phe Asp Tyr Asp Ser Glu Gly Arg Leu
1650 1655 1660

Thr Asn Val Thr Phe Pro Thr Gly Val Val Thr Asn Leu His Gly Asp
1665 1670 1675 1680

Met Asp Lys Ala Ile Thr Val Asp Ile Glu Ser Ser Ser Arg Glu Glu
1685 1690 1695

Asp Val Ser Ile Thr Ser Asn Leu Ser Ser Ile Asp Ser Phe Tyr Thr
1700 1705 1710

Met Val Gln Asp Gln Leu Arg Asn Ser Tyr Gln Ile Gly Tyr Asp Gly
1715 1720 1725

Ser Leu Arg Ile Ile Tyr Ala Ser Gly Leu Asp Ser His Tyr Gln Thr
1730 1735 1740

100-443886-111

Glu	Pro	His	Val	Leu	Ala	Gly	Thr	Ala	Asn	Pro	Thr	Val	Ala	Lys	Arg
1745						1750					1755				1760
Asn	Met	Thr	Leu	Pro	Gly	Glu	Asn	Gly	Gln	Asn	Leu	Val	Glu	Trp	Arg
				1765					1770					1775	
Phe	Arg	Lys	Glu	Gln	Ala	Gln	Gly	Lys	Val	Asn	Val	Phe	Gly	Arg	Lys
			1780					1785					1790		
Leu	Arg	Val	Asn	Gly	Arg	Asn	Leu	Leu	Ser	Val	Asp	Phe	Asp	Arg	Thr
		1795					1800					1805			
Thr	Lys	Thr	Glu	Lys	Ile	Tyr	Asp	Asp	His	Arg	Lys	Phe	Leu	Leu	Arg
	1810					1815					1820				
Ile	Ala	Tyr	Asp	Thr	Ser	Gly	His	Pro	Thr	Leu	Trp	Leu	Pro	Ser	Ser
1825					1830					1835					1840
Lys	Leu	Met	Ala	Val	Asn	Val	Thr	Tyr	Ser	Ser	Thr	Gly	Gln	Ile	Ala
			1845						1850					1855	
Ser	Ile	Gln	Arg	Gly	Thr	Thr	Ser	Glu	Lys	Val	Asp	Tyr	Asp	Gly	Gln
		1860						1865					1870		
Gly	Arg	Ile	Val	Ser	Arg	Val	Phe	Ala	Asp	Gly	Lys	Thr	Trp	Ser	Tyr
		1875					1880					1885			
Thr	Tyr	Leu	Glu	Lys	Ser	Met	Val	Leu	Leu	Leu	His	Ser	Gln	Arg	Gln
	1890					1895					1900				
Tyr	Ile	Phe	Glu	Tyr	Asp	Met	Trp	Asp	Arg	Leu	Ser	Ala	Ile	Thr	Met
1905					1910					1915					1920
Pro	Ser	Val	Ala	Arg	His	Thr	Met	Gln	Thr	Ile	Arg	Ser	Ile	Gly	Tyr
			1925						1930					1935	
Tyr	Arg	Asn	Ile	Tyr	Asn	Pro	Pro	Glu	Ser	Asn	Ala	Ser	Ile	Ile	Thr
		1940						1945					1950		
Asp	Tyr	Asn	Glu	Glu	Gly	Leu	Leu	Leu	Gln	Thr	Ala	Phe	Leu	Gly	Thr
		1955					1960					1965			
Ser	Arg	Arg	Val	Leu	Phe	Lys	Tyr	Arg	Arg	Gln	Thr	Arg	Leu	Ser	Glu
	1970					1975						1980			
Ile	Leu	Tyr	Asp	Ser	Thr	Arg	Val	Ser	Phe	Thr	Tyr	Asp	Glu	Thr	Ala
1985					1990					1995					2000
Gly	Val	Leu	Lys	Thr	Val	Asn	Leu	Gln	Ser	Asp	Gly	Phe	Ile	Cys	Thr
			2005						2010					2015	
Ile	Arg	Tyr	Arg	Gln	Ile	Gly	Pro	Leu	Ile	Asp	Arg	Gln	Ile	Phe	Arg
		2020						2025					2030		
Phe	Ser	Glu	Asp	Gly	Met	Val	Asn	Ala	Arg	Phe	Asp	Tyr	Ser	Tyr	Asp
	2035						2040					2045			

Asn Ser Phe Arg Val Thr Ser Met Gln Gly Val Ile Asn Glu Thr Pro
 2050 2055 2060

Leu Pro Ile Asp Leu Tyr Gln Phe Asp Asp Ile Ser Gly Lys Val Glu
 2065 2070 2075 2080

Gln Phe Gly Lys Phe Gly Val Ile Tyr Tyr Asp Ile Asn Gln Ile Ile
 2085 2090 2095

Ser Thr Ala Val Met Thr Tyr Thr Lys His Phe Asp Ala His Gly Arg
 2100 2105 2110

Ile Lys Glu Ile Gln Tyr Glu Ile Phe Arg Ser Leu Met Tyr Trp Ile
 2115 2120 2125

Thr Ile Gln Tyr Asp Asn Met Gly Arg Val Thr Lys Arg Glu Ile Lys
 2130 2135 2140

Ile Gly Pro Phe Ala Asn Thr Thr Lys Tyr Ala Tyr Glu Tyr Asp Val
 2145 2150 2155 2160

Asp Gly Gln Leu Gln Thr Val Tyr Leu Asn Glu Lys Ile Met Trp Arg
 2165 2170 2175

Tyr Asn Tyr Asp Leu Asn Gly Asn Leu His Leu Leu Asn Pro Ser Asn
 2180 2185 2190

Ser Ala Arg Leu Thr Pro Leu Arg Tyr Asp Leu Arg Asp Arg Ile Thr
 2195 2200 2205

Arg Leu Gly Asp Val Gln Tyr Arg Leu Asp Glu Asp Gly Phe Leu Arg
 2210 2215 2220

Gln Arg Gly Thr Glu Ile Phe Glu Tyr Ser Ser Lys Gly Leu Leu Thr
 2225 2230 2235 2240

Arg Val Tyr Ser Lys Gly Ser Gly Trp Thr Val Ile Tyr Arg Tyr Asp
 2245 2250 2255

Gly Leu Gly Arg Arg Val Ser Ser Lys Thr Ser Leu Gly Gln His Leu
 2260 2265 2270

Gln Phe Phe Tyr Ala Asp Leu Thr Tyr Pro Thr Arg Ile Thr His Val
 2275 2280 2285

Tyr Asn His Ser Ser Ser Glu Ile Thr Ser Leu Tyr Tyr Asp Leu Gln
 2290 2295 2300

Gly His Leu Phe Ala Met Glu Ile Ser Ser Gly Asp Glu Phe Tyr Ile
 2305 2310 2315 2320

Ala Ser Asp Asn Thr Gly Thr Pro Leu Ala Val Phe Ser Ser Asn Gly
 2325 2330 2335

Leu Met Leu Lys Gln Ile Gln Tyr Thr Ala Tyr Gly Glu Ile Tyr Phe
 2340 2345 2350

Asp Ser Asn Ile Asp Phe Gln Leu Val Ile Gly Phe His Gly Gly Leu
 2355 2360 2365

Tyr Asp Pro Leu Thr Lys Leu Ile His Phe Gly Glu Arg Asp Tyr Asp
 2370 2375 2380

Ile Leu Ala Gly Arg Trp Thr Thr Pro Asp Ile Glu Ile Trp Lys Arg
 2385 2390 2395 2400

Ile Gly Lys Asp Pro Ala Pro Phe Asn Leu Tyr Met Phe Arg Asn Asn
 2405 2410 2415

Asn Pro Ala Ser Lys Ile His Asp Val Lys Asp Tyr Ile Thr Asp Val
 2420 2425 2430

Asn Ser Trp Leu Val Thr Phe Gly Phe His Leu His Asn Ala Ile Pro
 2435 2440 2445

Gly Phe Pro Val Pro Lys Phe Asp Leu Thr Glu Pro Ser Tyr Glu Leu
 2450 2455 2460

Val Lys Ser Gln Gln Trp Asp Asp Ile Pro Pro Ile Phe Gly Val Gln
 2465 2470 2475 2480

Gln Gln Val Ala Arg Gln Ala Lys Ala Phe Leu Ser Leu Gly Lys Met
 2485 2490 2495

Ala Glu Val Gln Val Ser Arg Arg Arg Ala Gly Gly Ala Gln Ser Trp
 2500 2505 2510

Leu Trp Phe Ala Thr Val Lys Ser Leu Ile Gly Lys Gly Val Met Leu
 2515 2520 2525

Ala Val Ser Gln Gly Arg Val Gln Thr Asn Val Leu Asn Ile Ala Asn
 2530 2535 2540

Glu Asp Cys Ile Lys Val Ala Ala Val Leu Asn Asn Ala Phe Tyr Leu
 2545 2550 2555 2560

Glu Asn Leu His Phe Thr Ile Glu Gly Lys Asp Thr His Tyr Phe Ile
 2565 2570 2575

Lys Thr Thr Thr Pro Glu Ser Asp Leu Gly Thr Leu Arg Leu Thr Ser
 2580 2585 2590

Gly Arg Lys Ala Leu Glu Asn Gly Ile Asn Val Thr Val Ser Gln Ser
 2595 2600 2605

Thr Thr Val Val Asn Gly Arg Thr Arg Arg Phe Ala Asp Val Glu Met
 2610 2615 2620

Gln Phe Gly Ala Leu Ala Leu His Val Arg Tyr Gly Met Thr Leu Asp
 2625 2630 2635 2640

Glu Glu Lys Ala Arg Ile Leu Glu Gln Ala Arg Gln Arg Ala Leu Ala
 2645 2650 2655

Arg Ala Trp Ala Arg Glu Gln Gln Arg Val Arg Asp Gly Glu Glu Gly
2660 2665 2670

Ala Arg Leu Trp Thr Glu Gly Glu Lys Arg Gln Leu Leu Ser Ala Gly
2675 2680 2685

Lys Val Gln Gly Tyr Asp Gly Tyr Tyr Val Leu Ser Val Glu Gln Tyr
2690 2695 2700

Pro Glu Leu Ala Asp Ser Ala Asn Asn Ile Gln Phe Leu Arg Gln Ser
2705 2710 2715 2720

Glu Ile Gly Arg Arg
2725

<210> 37

<211> 8645

<212> DNA

<213> Homo sapiens

<400> 37

```

tttggcctcg ggccagaatt cggcacgagg ggtctggagc ttggaggaga agtctgaact 60
aaggataaac taaagagagg ccaatgagac ttgaacctg agcctaagtt gtcaccagca 120
ggactgatgt gcacacagaa ggaatgaagt atggatgtga aagaacgcag gccttactgc 180
tccctgacca agagcagacg agagaaggaa cggcgctaca caaattcctc cgcagacaat 240
gaggagtgcc gggtagccac acagaagtc taccagttcca gcgagacatt gaaagctttt 300
gatcatgatt cctcgcggct gctttacggc aacagagtga aggatttggg tcacagagaa 360
gcagacgagt tcactagaca aggacagaat ttaccctaa ggcagttagg agtttgtgaa 420
ccagcaactc gaagaggact ggcattttgt gcggaaatgg ggctccctca cagaggttac 480
tctatcagtg cagggtcaga tgctgatac gaaaatgaag cagtgatgtc cccagagcat 540
gccatgagac ttggggcag ggggggtcaaa tcaggccgca gctcctgcct gtcaagtcgg 600
tccaactcag cctcacctc gacagatacg gagcacgaaa acaagtcoga cagtgagaat 660
gagcaactcg caagcaatca aggccagtc accctgcagc ccttgccgcc tcccataag 720
cagcactctg cacagcatca tccatccatc acttctctca acagaaactc cctgaccaat 780
agaaggaacc agagtccggc cccgccggct gctttgcccg ccgagctgca aaccacacc 840
gagtcggtcc agctgcagga cagctgggtc cttggcagta atgtaccact ggaaagcagg 900
catttcttat tcaaaacagg aacaggtaca acgccaactg tcagtactgc aacccaggga 960
tacacaatgg catctggctc tgtttattca ccacctactc ggccactacc tagaaacacc 1020
ctatcaagaa gtgcttttaa attcaagaag tcttcaaagt actgtagctg gaaatgcact 1080
gcactgtgtg ccgtaggggt ctcgggtgtc ctggcaatac tctgtctta ttttatagca 1140
atgcactctt ttggcctcaa ctggcagcta cagcagactg aaaatgacac atttgagaat 1200
ggaaaagtga attctgatac catgccaaaca aacactgtgt cattaccttc tggagacaat 1260
ggaaaattag gtggatttac gcaagaaaaa aacaccatag attccggaga acttgatatt 1320
ggccgaagag caattcaaga gattcctccc gggatcttct ggagatcaca gctcttcatt 1380
gatcagccac agtttcttaa attcaatatc tctcttcaga aggatgcatt gattggagta 1440
tatggccgga aaggcttacc gccttcccat actcagtatg acttcgtgga gctcctggat 1500
ggcagcaggc tgattgccag agagcagcgg agcctgcttg agacggagag agccgggcgg 1560
caggcgagat ccgtcagcct tcatgagcgc ggctttatcc agtacttgga ttctggaatc 1620
tggcatctgg ctttttataa tgatgggaaa aatgcagagc aggtgtcttt taataccatt 1680
gttatagagt ctgtggtgga atgtccccga aattgccatg gaaatggaga atgcgtttct 1740
ggaaacttgcc attgttttcc aggttttctg ggtccggatt gttcaagagc cgcctgtcca 1800
gtgttatgta gtggcaacgg gcagtaactc aagggccgct gcctgtgttt cagcggctgg 1860
aagggcaccg agtgtgatgt gccgactacc cagtgtattg acccacagtg tgggggtcgt 1920
gggatttgta tcatgggctc ctgtgcttgc agctcaggat acaaaggaga aagttgtgaa 1980
gaagctgact gtatagaccc tgggtgttct aatcatggtg tgtgtatcca cggggaatgt 2040

```

cactgcagtc	caggatgggg	aggtagcaat	tgtgaaatac	tgaagaccat	gtgtccagac	2100
cagtgtccg	gccacggaac	gtatcttcaa	gaaagtggct	cctgcacgtg	tgaccctaac	2160
tggactggcc	cagactgtct	aaacgaaata	tgttctgtg	actgtggctc	acacggcggt	2220
tgcattgggg	ggacgtgtcg	ctgtgaagaa	ggctggacgg	gcccacgctc	taatcacaga	2280
gcctgccacc	cccgctgtcg	cgagcacggg	acctgcaagg	atggcaagtg	tgaatgcagc	2340
cagggtctga	atggagagca	ctgcactatc	gctcactatt	tggataagat	agttaaagac	2400
aagataggat	ataaagaggg	ttgtcctggg	ctgtgcaaca	gcaatggaag	atgtacctcg	2460
gacaaaatg	qcqgacatg	tgtgtgccag	cctgqatgga	gaqgaqcaqg	ctgtqacgta	2520
gccatggaga	ctctttgcac	agatagcaag	gacaatgaag	gggatggact	cattgactgc	2580
atcgatcccc	atttctacct	acaqaattcc	tcccqaatc	agccctattg	tcqqqactgc	2640
cqqatcctc	aggacatcat	tagcnaaagc	ctccaattcg	ctcttcagca	agctgccaac	2700
tccttttatg	atcgaatcag	tttctttata	ggatctgata	gcacccatgt	tatacctgga	2760
gaaagtccct	tcaataagag	ccttgcacat	gtcatcagag	gccaagtact	gactgctgat	2820
ggaactccac	ttattggagt	aaatgtctcg	tttttccatt	accagaata	tggatatact	2880
attacccgcc	aggacggaat	gtttgacttg	gtggcnaatg	gtggggcctc	tctaactttg	2940
gtatttgaac	gatccccatt	cctcactcag	tatcatactg	tgtggattcc	atggaatgtc	3000
ttttatgtga	tggataacct	agtcattggg	aaagaagaga	atgacattcc	cagctgtgat	3060
cttgagtggat	tcgtagaggc	aaatcccatc	atttgtctat	cgactttatc	cacctttttc	3120
agatctttct	ctgaagacag	tcccatcatt	cccgaaacac	aggtaactca	cgaggaaact	3180
acaattccag	gaacagattt	gaaactctcc	tacttgagtt	ccagagctgc	agggтатаag	3240
tcagttctca	agatcaccat	gacccagtct	attattccat	ttaatttaat	gaaggttcat	3300
cttatggtag	ctgtagtagg	aagactcttc	caaaagtggg	ttcctgcctc	accaaacttg	3360
gcctatactt	tcatatggga	tataaacagat	gcataatact	agaaagtcta	tggctctatt	3420
gaagctggtg	cttcagttgg	ataatgagat	gagtcgtgtt	cgacactgac	ttgtgtggaa	3480
aagaggactg	ccattctgca	gggctatgaa	tggatgcgt	ccaacatggg	tggctggaca	3540
ttagataaac	atcacgtgct	ggatgtacag	aacgggtatac	tgtacaaggg	aaacggggaa	3600
aaccagttca	tctcccagca	gcctccagtc	gtgagtagca	tcatgggcaa	tgggcgaagg	3660
cgcagcattt	cctgccccag	ttgcaatggg	caagctgatg	gtaacaagtt	actggcccca	3720
gtggcgctag	ccttgtgggt	cgatggcagt	ctgtacgtag	tcgatttcaa	ctacgtgcgg	3780
cggatattcc	cttctggaaa	tgtaacagat	gtcttagaac	tgaagaaata	agattttaga	3840
catagcagca	acccagctca	tagatactac	cttgcaacgg	atccagtcac	gggagatctg	3900
tacgtttctg	acacaaacac	ccgcagaatt	tatgcgccaa	agtcacttac	gggggcaaaa	3960
gacttgacta	aaaatgcaga	agtcgtcgca	gggacagggg	agcaatgcct	tccgtttgac	4020
gaggcgagat	gtggggatgg	agggaaggcc	gtggaagcca	cactcatgag	tcccaaagga	4080
atggcagttg	ataagaatgg	attaatctac	tttgttgatg	gaaccatgat	taggaaagtt	4140
gacaaaaatg	gaatcatatc	gcactcttctg	ggctctaacg	atttgacttc	agccagacct	4200
ttaaacttgg	acaccagcat	gcacatcagc	caggtacgtc	tggaatggcc	cactgaccta	4260
gccattaacc	ctatggataa	ctccattttat	gtcctgggata	ataatgtagt	tttacagatc	4320
actgaaaatc	gtcaagttcg	cattgctgct	ggacggccca	tgcactgtca	yggttcccyga	4380
gtggaatatc	ctgtggggaa	gcacgcggtg	cagacaacac	tggaatcagc	cactgccatt	4440
gctgtgtcct	acagtggggg	cctgtacatt	actgaaactg	atgagaagaa	aattaaccgg	4500
ataaggcaga	tcacaacaga	tggagaatc	tctcttagtg	ccggaatacc	ttcagatgtg	4560
gactgcaaaa	atgtagccaa	ctgtcagctg	taccagagtg	gagtggtcta	cgccaaggat	4620
gccaaactca	gtgccccatc	ctccttggtc	gcttctccag	atggtacact	gtatatgtca	4680
gatctaggga	atatccggat	ccgggctgtg	tcaaagaata	agcctttact	taactctatg	4740
aacttctatg	aagttgcgtc	tccaactgat	caagaactct	acatctttga	catcaatggt	4800
actcaccaat	atactgtaag	tttagtcact	ggtgattacc	tttacaattt	tagctacagc	4860
aatgacaatg	atattactgc	tgtgacagac	agcaatggca	acacccttag	aatttagcgg	4920
gacccaatc	gcatgccagt	tcgagtgggt	ctctctgata	accaagtgat	atggttgaca	4980
ataggaacaa	atggatgttt	gaaaggcgtg	actgctcaag	gactggaatt	agttttgttt	5040
acttaccatg	gcaatagtgg	ccttttagcc	actaaaagtg	atgaaactgg	atggacaacg	5100
ttttttgact	atgacagtga	aggctgtctg	acaaatgtta	cgtttccaac	tggagtgggtc	5160
acaaacctgc	atggggacat	ggacaaggct	atcacagtgg	acattgagtc	atctagccga	5220
gaagaagatg	tcagcatcac	ttcaaatctg	tcctcatagc	atctctttca	caccatggtt	5280
caagatcagt	tagaacacag	ctaacagatt	ggtttgatcg	gtctcctcag	aattatctac	5340
gccagtggcc	tggactcaca	ctaccaaaaa	gagcgcgacg	ttctggctgg	caccgcataat	5400
ccgacgggtg	ccaaaagaaa	catgactttg	cctggcgaga	acggtcaaaa	cttgggtgaaa	5460

tggagattcc	gaaaagagca	agcccaagg	aaagtcaatg	tctttggccg	caagctcagg	5520
gttaatggca	gaaacctcct	ttcagttgac	tttgatcgaa	caacaaagac	agaaaagatc	5580
tatgacgacc	accgtaaatt	tctactgagg	atcgccctacg	acacgctctgg	gcacccgact	5640
ctctggetgc	caagcagcaa	gctgatggcc	gtcaatgtca	cctattcatc	cacagggtcaa	5700
atggccagca	tccagcgagg	caccactagc	gagaaagtag	attatgacgg	acaggggagg	5760
ctgtgtcttc	gggtcttttg	tgatggtaaa	cattggagtt	acacatattt	agaaaagctc	5820
atggttcttc	tgcttcatag	ccagcggcag	tacatcttcg	aatacgatat	gtgggaccgc	5880
ctgtctqcca	tcaccatqcc	caqtgttqct	cqccacacca	tqcaqaccat	ccqatccatt	5940
ggctactacc	gcaacatata	caaccccccg	gaaagcaacg	cctccatcat	cacggactac	6000
aacaaqaaq	qgctqcttct	acaaacaqct	ttcttqqqta	caagtcggaq	qatcttattc	6060
aaatacagaa	ggcagactag	gctctcagaa	attttatatg	atagcacaag	agtcagtttt	6120
acctatgatg	aaacagcagg	agtcctaaag	acagtaaaac	tccagagtga	tggttttatt	6180
tgaccattta	gatacaggca	aattgggtccc	ctgattgaca	ggcagatttt	ccgcttttagt	6240
gaagatggga	tggtaaattgc	aagatttgac	tatagctatg	acaacagctt	tcgagtgaac	6300
agcatgcagg	gtgtgatcaa	tgaaacgcca	ctgcctattg	atctgtatca	gtttgatgac	6360
atttctggca	aagttgagca	gtttggaaag	tttggagtta	tatattatga	tattaaccag	6420
atcatttcta	cagctgtaat	gacctatacg	aagcactttg	atgctcatgg	ccgtatcaag	6480
gagattcaat	atgagatatt	caggctcgctc	atgtactgga	ttacaattca	gtatgataac	6540
atggctcggg	taaccaagag	agagattaaa	atagggccct	ttgccaacac	caccaaatat	6600
gcttatgaat	atgatgttga	tgagcagctc	caaacagttt	acctcaatga	aaagataatg	6660
tggcggtaca	actacgatct	ggaatggaaac	ctccattttac	tgaacccaag	taacagtgcg	6720
cgtctgacac	cccttcgcta	tgacctgcga	gacagaatca	ctcgactggg	tgatgttcaa	6780
tatcggttgg	atgaagatgg	tttctctacgt	caaaggggca	cggaaatctt	tgaatatagc	6840
tccaaggggc	ttctaactcg	agtttacagt	aaaggcagtg	gctggacagt	gatctaccgt	6900
tatgacggcc	tgggaaggcg	tgtttctagc	aaaacacgtc	taggacagca	cctgcagttt	6960
tttatgtctg	acttaactta	tcccacttagc	attactcatg	ttacaacca	ctcgagttca	7020
gaaattacct	ccctgtatta	tgatctccaa	ggacatcttt	ttgccatgga	aatcagcagt	7080
ggggatgaat	tctatattgc	atcggataac	acagggacac	cactggctgt	gttcagtagc	7140
aatgggctta	tgctgaaaca	gattcagtag	actgcatatg	gggaaatcta	ttttgactct	7200
aatattgact	ttcaactggg	aattggattt	catggtggcc	tgtatgacc	actcaccaaa	7260
ttaatccact	ttggagaaaag	agatttatgac	attttggcag	gacggtggac	aacacctgac	7320
atagaaaact	ggaaaagaat	tgggaaggac	ccagctcctt	ttaaacttga	catgttttagg	7380
aataacaacc	ctgcaagcaa	aatccatgac	gtgaaagatt	acatcacaga	tgttaacagc	7440
tggctggtga	catttgggtt	ccatctgcac	aatgctatc	ctggattccc	tgttcccaaa	7500
tttgatttaa	cagaaccttc	ttacgaactt	gtgaagagtc	agcagtggga	tgatataccg	7560
cccatcttcg	gagtcacagc	gcaagtggcg	cggcaggcca	aggccttcct	gtcgctgggg	7620
aagatggccg	aggtgcaggt	gagccggcgc	cgggcggcgc	gcgcgcagtc	ctggctgttg	7680
ttcgccacgg	tcaagtcgct	gatcggcaag	ggcgctcatg	tggcgcgtcag	ccagggccgc	7740
gtgcagacca	acgtgtctca	catcgcacaac	gaggactgca	tcaaggtggc	ggccgtgctc	7800
aacaacgcct	ttacctgga	gaacctgcac	ttcaccatcg	aggaaaggga	cacgcactac	7860
ttcatcaaga	ccaccacgcc	cgagagcgac	ctgggcacgc	tgcggttgac	cagcggccgc	7920
aaggcgctgg	agaacggcat	caacgtgacg	gtgtcgcagt	ccaccacggt	ggtgaacggc	7980
aggacgcgca	ggttcgcgga	cgtggagatg	cagttcggcg	cgtggcgct	gcacgtgcgc	8040
tacggcatga	ccctggacga	ggagaaggcg	cgcactcctg	agcaggcgcg	gcagcgcgcg	8100
ctcgcccggg	cctgggcgcg	cgagcagcag	cgcgtgcgcg	acggcgagga	gggcgcgcgc	8160
ctctgctacg	aggcgcgaga	cggcagcgtg	ctgagcgccg	gcaagggtga	ggactcacag	8220
gggtactacg	tactctcggt	ggagcagtag	cccagctcgg	ccgacagcgc	gaacaacatc	8280
cagttcctgc	ggcagagcga	gatcggcagg	aggtaacgcc	cgggcgcgcg	ccgcgcgagc	8340
gctcacgccc	tgccacatt	gtcctgtggc	acaacccgag	tgggactctc	caacgcccac	8400
gagccttcct	ccggggggaa	tgagactgct	gttacgacct	acaccacac	cgcgaaaaac	8460
aggacgcgtt	ttttccgaat	gaccttaaag	gtgatcggct	ttaacgaata	tgtttacata	8520
tgcatagcgc	tgcactcagt	cggactgaac	gtagccagag	gaaaaaaaaa	tcatacaagg	8580
caaaggcctc	gacctgttgc	gctgggcgct	ctgttccttc	taggcactgt	atttaactaa	8640
cttta						8645

<211> 2721

<212> PRT

<213> Homo sapiens

<400> 38

```

Met Asp Val Lys Glu Arg Arg Pro Tyr Cys Ser Leu Thr Lys Ser Arg
 1              5              10              15

Arg Glu Lys Glu Arg Arg Tyr Thr Asn Ser Ser Ala Asp Asn Glu Glu
      20              25              30

Cys Arg Val Pro Thr Gln Lys Ser Tyr Ser Ser Ser Glu Thr Leu Lys
      35              40              45

Ala Phe Asp His Asp Ser Ser Arg Leu Leu Tyr Gly Asn Arg Val Lys
      50              55              60

Asp Leu Val His Arg Glu Ala Asp Glu Phe Thr Arg Gln Gly Gln Asn
      65              70              75              80

Phe Thr Leu Arg Gln Leu Gly Val Cys Glu Pro Ala Thr Arg Arg Gly
      85              90              95

Leu Ala Phe Cys Ala Glu Met Gly Leu Pro His Arg Gly Tyr Ser Ile
      100              105              110

Ser Ala Gly Ser Asp Ala Asp Thr Glu Asn Glu Ala Val Met Ser Pro
      115              120              125

Glu His Ala Met Arg Leu Trp Gly Arg Gly Val Lys Ser Gly Arg Ser
      130              135              140

Ser Cys Leu Ser Ser Arg Ser Asn Ser Ala Leu Thr Leu Thr Asp Thr
      145              150              155              160

Glu His Glu Asn Lys Ser Asp Ser Glu Asn Glu Gln Pro Ala Ser Asn
      165              170              175

Gln Gly Gln Ser Thr Leu Gln Pro Leu Pro Pro Ser His Lys Gln His
      180              185              190

Ser Ala Gln His His Pro Ser Ile Thr Ser Leu Asn Arg Asn Ser Leu
      195              200              205

Thr Asn Arg Arg Asn Gln Ser Pro Ala Pro Pro Ala Ala Leu Pro Ala
      210              215              220

Glu Leu Gln Thr Thr Pro Glu Ser Val Gln Leu Gln Asp Ser Trp Val
      225              230              235              240

Leu Gly Ser Asn Val Pro Leu Glu Ser Arg His Phe Leu Phe Lys Thr
      245              250              255

Gly Thr Gly Thr Thr Pro Leu Phe Ser Thr Ala Thr Pro Gly Tyr Thr
      260              265              270

Met Ala Ser Gly Ser Val Tyr Ser Pro Pro Thr Arg Pro Leu Pro Arg

```


275	280	285
Asn Thr Leu Ser Arg Ser Ala Phe Lys Phe Lys Lys Ser Ser Lys Tyr		
290	295	300
Cys Ser Trp Lys Cys Thr Ala Leu Cys Ala Val Gly Val Ser Val Leu		
305	310	315 320
Leu Ala Ile Leu Leu Ser Tyr Phe Ile Ala Met His Leu Phe Gly Leu		
	325	330 335
Asn Trp Gln Leu Gln Gln Thr Glu Asn Asp Thr Phe Glu Asn Gly Lys		
	340	345 350
Val Asn Ser Asp Thr Met Pro Thr Asn Thr Val Ser Leu Pro Ser Gly		
	355	360 365
Asp Asn Gly Lys Leu Gly Gly Phe Thr Gln Glu Asn Asn Thr Ile Asp		
370	375	380
Ser Gly Glu Leu Asp Ile Gly Arg Arg Ala Ile Gln Glu Ile Pro Pro		
385	390	395 400
Gly Ile Phe Trp Arg Ser Gln Leu Phe Ile Asp Gln Pro Gln Phe Leu		
	405	410 415
Lys Phe Asn Ile Ser Leu Gln Lys Asp Ala Leu Ile Gly Val Tyr Gly		
	420	425 430
Arg Lys Gly Leu Pro Pro Ser His Thr Gln Tyr Asp Phe Val Glu Leu		
	435	440 445
Leu Asp Gly Ser Arg Leu Ile Ala Arg Glu Gln Arg Ser Leu Leu Glu		
450	455	460
Thr Glu Arg Ala Gly Arg Gln Ala Arg Ser Val Ser Leu His Glu Ala		
465	470	475 480
Gly Phe Ile Gln Tyr Leu Asp Ser Gly Ile Trp His Leu Ala Phe Tyr		
	485	490 495
Asn Asp Gly Lys Asn Ala Glu Gln Val Ser Phe Asn Thr Ile Val Ile		
	500	505 510
Glu Ser Val Val Glu Cys Pro Arg Asn Cys His Gly Asn Gly Glu Cys		
	515	520 525
Val Ser Gly Thr Cys His Cys Phe Pro Gly Phe Leu Gly Pro Asp Cys		
530	535	540
Ser Arg Ala Ala Cys Pro Val Leu Cys Ser Gly Asn Gly Gln Tyr Ser		
545	550	555 560
Lys Gly Arg Cys Leu Cys Phe Ser Gly Trp Lys Gly Thr Glu Cys Asp		
	565	570 575
Val Pro Thr Thr Gln Cys Ile Asp Pro Gln Cys Gly Gly Arg Gly Ile		

580	585	590
Cys Ile Met Gly Ser Cys Ala Cys Ser Ser Gly Tyr Lys Gly Glu Ser 595 600 605		
Cys Glu Glu Ala Asp Cys Ile Asp Pro Gly Cys Ser Asn His Gly Val 610 615 620		
Cys Ile His Gly Glu Cys His Cys Ser Pro Gly Trp Gly Gly Ser Asn 625 630 635 640		
Cys Glu Ile Leu Lys Thr Met Cys Pro Asp Gln Cys Ser Gly His Gly 645 650 655		
Thr Tyr Leu Gln Glu Ser Gly Ser Cys Thr Cys Asp Pro Asn Trp Thr 660 665 670		
Gly Pro Asp Cys Ser Asn Glu Ile Cys Ser Val Asp Cys Gly Ser His 675 680 685		
Gly Val Cys Met Gly Gly Thr Cys Arg Cys Glu Glu Gly Trp Thr Gly 690 695 700		
Pro Ala Cys Asn Gln Arg Ala Cys His Pro Arg Cys Ala Glu His Gly 705 710 715 720		
Thr Cys Lys Asp Gly Lys Cys Glu Cys Ser Gln Gly Trp Asn Gly Glu 725 730 735		
His Cys Thr Ile Ala His Tyr Leu Asp Lys Ile Val Lys Asp Lys Ile 740 745 750		
Gly Tyr Lys Glu Gly Cys Pro Gly Leu Cys Asn Ser Asn Gly Arg Cys 755 760 765		
Thr Leu Asp Gln Asn Gly Gly His Cys Val Cys Gln Pro Gly Trp Arg 770 775 780		
Gly Ala Gly Cys Asp Val Ala Met Glu Thr Leu Cys Thr Asp Ser Lys 785 790 795 800		
Asp Asn Glu Gly Asp Gly Leu Ile Asp Cys Met Asp Pro Asp Cys Cys 805 810 815		
Leu Gln Ser Ser Cys Gln Asn Gln Pro Tyr Cys Arg Gly Leu Pro Asp 820 825 830		
Pro Gln Asp Ile Ile Ser Gln Ser Leu Gln Ser Pro Ser Gln Gln Ala 835 840 845		
Ala Lys Ser Phe Tyr Asp Arg Ile Ser Phe Leu Ile Gly Ser Asp Ser 850 855 860		
Thr His Val Ile Pro Gly Glu Ser Pro Phe Asn Lys Ser Leu Ala Ser 865 870 875 880		
Val Ile Arg Gly Gln Val Leu Thr Ala Asp Gly Thr Pro Leu Ile Gly		

1003-3537-103102

885										890					895						
Val	Asn	Val	Ser	Phe	Phe	His	Tyr	Pro	Glu	Tyr	Gly	Tyr	Thr	Ile	Thr						
			900					905						910							
Arg	Gln	Asp	Gly	Met	Phe	Asp	Leu	Val	Ala	Asn	Gly	Gly	Ala	Ser	Leu						
		915					920					925									
Thr	Leu	Val	Phe	Glu	Arg	Ser	Pro	Phe	Leu	Thr	Gln	Tyr	His	Thr	Val						
	930					935					940										
Trp	Ile	Pro	Trp	Asn	Val	Phe	Tyr	Val	Met	Asp	Thr	Leu	Val	Met	Glu						
945					950					955					960						
Lys	Glu	Glu	Asn	Asp	Ile	Pro	Ser	Cys	Asp	Leu	Ser	Gly	Phe	Val	Arg						
				965				970						975							
Pro	Asn	Pro	Ile	Ile	Val	Ser	Ser	Pro	Leu	Ser	Thr	Phe	Phe	Arg	Ser						
			980					985					990								
Ser	Pro	Glu	Asp	Ser	Pro	Ile	Ile	Pro	Glu	Thr	Gln	Val	Leu	His	Glu						
	995					1000					1005										
Glu	Thr	Thr	Ile	Pro	Gly	Thr	Asp	Leu	Lys	Leu	Ser	Tyr	Leu	Ser	Ser						
1010					1015						1020										
Arg	Ala	Ala	Gly	Tyr	Lys	Ser	Val	Leu	Lys	Ile	Thr	Met	Thr	Gln	Ser						
1025					1030					1035					1040						
Ile	Ile	Pro	Phe	Asn	Leu	Met	Lys	Val	His	Leu	Met	Val	Ala	Val	Val						
				1045				1050						1055							
Gly	Arg	Leu	Phe	Gln	Lys	Trp	Phe	Pro	Ala	Ser	Pro	Asn	Leu	Ala	Tyr						
		1060						1065					1070								
Thr	Phe	Ile	Trp	Asp	Lys	Thr	Asp	Ala	Tyr	Asn	Gln	Lys	Val	Tyr	Gly						
	1075					1080					1085										
Leu	Ser	Glu	Ala	Val	Val	Ser	Val	Gly	Tyr	Glu	Tyr	Glu	Ser	Cys	Leu						
1090					1095					1100											
Asp	Leu	Thr	Leu	Trp	Glu	Lys	Arg	Thr	Ala	Ile	Leu	Gln	Gly	Tyr	Glu						
1105				1110					1115					1120							
Leu	Asp	Ala	Ser	Asn	Met	Gly	Gly	Trp	Thr	Leu	Asp	Lys	His	His	Val						
				1125				1130					1135								
Leu	Asp	Val	Gln	Asn	Gly	Ile	Leu	Tyr	Lys	Gly	Asn	Gly	Glu	Asn	Gln						
	1140						1145					1150									
Phe	Ile	Ser	Gln	Gln	Pro	Pro	Val	Val	Ser	Ser	Ile	Met	Gly	Asn	Gly						

30035854, 30035859

1185	1190	1195	1200
Leu Tyr Val Gly Asp Phe Asn Tyr Val Arg Arg Ile Phe Pro Ser Gly	1205	1210	1215
Asn Val Thr Ser Val Leu Glu Leu Arg Asn Lys Asp Phe Arg His Ser	1220	1225	1230
Ser Asn Pro Ala His Arg Tyr Tyr Leu Ala Thr Asp Pro Val Thr Gly	1235	1240	1245
Asp Leu Tyr Val Ser Asp Thr Asn Thr Arg Arg Ile Tyr Arg Pro Lys	1250	1255	1260
Ser Leu Thr Gly Ala Lys Asp Leu Thr Lys Asn Ala Glu Val Val Ala	1265	1270	1275
Gly Thr Gly Glu Gln Cys Leu Pro Phe Asp Glu Ala Arg Cys Gly Asp	1285	1290	1295
Gly Gly Lys Ala Val Glu Ala Thr Leu Met Ser Pro Lys Gly Met Ala	1300	1305	1310
Val Asp Lys Asn Gly Leu Ile Tyr Phe Val Asp Gly Thr Met Ile Arg	1315	1320	1325
Lys Val Asp Gln Asn Gly Ile Ile Ser Thr Leu Leu Gly Ser Asn Asp	1330	1335	1340
Leu Thr Ser Ala Arg Pro Leu Thr Cys Asp Thr Ser Met His Ile Ser	1345	1350	1355
Gln Val Arg Leu Glu Trp Pro Thr Asp Leu Ala Ile Asn Pro Met Asp	1365	1370	1375
Asn Ser Ile Tyr Val Leu Asp Asn Asn Val Val Leu Gln Ile Thr Glu	1380	1385	1390
Asn Arg Gln Val Arg Ile Ala Ala Gly Arg Pro Met His Cys Gln Val	1395	1400	1405
Pro Gly Val Glu Tyr Pro Val Gly Lys His Ala Val Gln Thr Thr Leu	1410	1415	1420
Glu Ser Ala Thr Ala Ile Ala Val Ser Tyr Ser Gly Val Leu Tyr Ile	1425	1430	1435
Thr Glu Thr Asp Glu Lys Lys Ile Asn Arg Ile Arg Gln Val Thr Thr	1445	1450	1455
Asp Gly Glu Ile Ser Leu Val Ala Gly Ile Pro Ser Glu Cys Asp Cys	1460	1465	1470
Lys Asn Asp Ala Asn Cys Asp Cys Tyr Gln Ser Gly Asp Gly Tyr Ala	1475	1480	1485
Lys Asp Ala Lys Leu Ser Ala Pro Ser Ser Leu Ala Ala Ser Pro Asp			

1490	1495	1500
Gly Thr Leu Tyr Ile Ala Asp Leu Gly Asn Ile Arg Ile Arg Ala Val 1505	1510	1515 1520
Ser Lys Asn Lys Pro Leu Leu Asn Ser Met Asn Phe Tyr Glu Val Ala 1525	1530	1535
Ser Pro Thr Asp Gln Glu Leu Tyr Ile Phe Asp Ile Asn Gly Thr His 1540	1545	1550
Gln Tyr Thr Val Ser Leu Val Thr Gly Asp Tyr Leu Tyr Asn Phe Ser 1555	1560	1565
Tyr Ser Asn Asp Asn Asp Ile Thr Ala Val Thr Asp Ser Asn Gly Asn 1570	1575	1580
Thr Leu Arg Ile Arg Arg Asp Pro Asn Arg Met Pro Val Arg Val Val 1585	1590	1595 1600
Ser Pro Asp Asn Gln Val Ile Trp Leu Thr Ile Gly Thr Asn Gly Cys 1605	1610	1615
Leu Lys Gly Met Thr Ala Gln Gly Leu Glu Leu Val Leu Phe Thr Tyr 1620	1625	1630
His Gly Asn Ser Gly Leu Leu Ala Thr Lys Ser Asp Glu Thr Gly Trp 1635	1640	1645
Thr Thr Phe Phe Asp Tyr Asp Ser Glu Gly Arg Leu Thr Asn Val Thr 1650	1655	1660
Phe Pro Thr Gly Val Val Thr Asn Leu His Gly Asp Met Asp Lys Ala 1665	1670	1675 1680
Ile Thr Val Asp Ile Glu Ser Ser Ser Arg Glu Glu Asp Val Ser Ile 1685	1690	1695
Thr Ser Asn Leu Ser Ser Ile Asp Ser Phe Tyr Thr Met Val Gln Asp 1700	1705	1710
Gln Leu Arg Asn Ser Tyr Gln Ile Gly Tyr Asp Gly Ser Leu Arg Ile 1715	1720	1725
Ile Tyr Ala Ser Gly Leu Asp Ser His Tyr Gln Thr Glu Pro His Val 1730	1735	1740
Leu Ala Gly Thr Ala Asn Pro Thr Val Ala Lys Arg Asn Met Thr Leu 1745	1750	1755 1760
Pro Gly Glu Asn Gly Gln Asn Leu Val Glu Trp Arg Phe Arg Lys Glu 1765	1770	1775
Gln Ala Gln Gly Lys Val Asn Val Phe Gly Arg Lys Leu Arg Val Asn 1780	1785	1790
Gly Arg Asn Leu Leu Ser Val Asp Phe Asp Arg Thr Thr Lys Thr Glu		

11

1795	1800	1805
Lys Ile Tyr Asp Asp His Arg Lys Phe Leu Leu Arg Ile Ala Tyr Asp 1810 1815 1820		
Thr Ser Gly His Pro Thr Leu Trp Leu Pro Ser Ser Lys Leu Met Ala 1825 1830 1835 1840		
Val Asn Val Thr Tyr Ser Ser Thr Gly Gln Ile Ala Ser Ile Gln Arg 1845 1850 1855		
Gly Thr Thr Ser Glu Lys Val Asp Tyr Asp Gly Gln Gly Arg Ile Val 1860 1865 1870		
Ser Arg Val Phe Ala Asp Gly Lys Thr Trp Ser Tyr Thr Tyr Leu Glu 1875 1880 1885		
Lys Ser Met Val Leu Leu Leu His Ser Gln Arg Gln Tyr Ile Phe Glu 1890 1895 1900		
Tyr Asp Met Trp Asp Arg Leu Ser Ala Ile Thr Met Pro Ser Val Ala 1905 1910 1915 1920		
Arg His Thr Met Gln Thr Ile Arg Ser Ile Gly Tyr Tyr Arg Asn Ile 1925 1930 1935		
Tyr Asn Pro Pro Glu Ser Asn Ala Ser Ile Ile Thr Asp Tyr Asn Glu 1940 1945 1950		
Glu Gly Leu Leu Leu Gln Thr Ala Phe Leu Gly Thr Ser Arg Arg Val 1955 1960 1965		
Leu Phe Lys Tyr Arg Arg Gln Thr Arg Leu Ser Glu Ile Leu Tyr Asp 1970 1975 1980		
Ser Thr Arg Val Ser Phe Thr Tyr Asp Glu Thr Ala Gly Val Leu Lys 1985 1990 1995 2000		
Thr Val Asn Leu Gln Ser Asp Gly Phe Ile Cys Thr Ile Arg Tyr Arg 2005 2010 2015		
Gln Ile Gly Pro Leu Ile Asp Arg Gln Ile Phe Arg Phe Ser Glu Asp 2020 2025 2030		
Gly Met Val Asn Ala Arg Phe Asp Tyr Ser Tyr Asp Asn Ser Phe Arg 2035 2040 2045		
Val Thr Ser Met Gln Gly Val Ile Asn Glu Thr Pro Leu Pro Ile Asp 2050 2055 2060		
Leu Tyr Gln Phe Asp Asp Ile Ser Gly Lys Val Glu Gln Phe Gly Lys 2065 2070 2075 2080		
Phe Gly Val Ile Tyr Tyr Asp Ile Asn Gln Ile Ile Ser Thr Ala Val 2085 2090 2095		
Met Thr Tyr Thr Lys His Phe Asp Ala His Gly Arg Ile Lys Glu Ile		

2100	2105	2110
Gln Tyr Glu Ile Phe Arg Ser Leu Met Tyr Trp Ile Thr Ile Gln Tyr 2115 2120 2125		
Asp Asn Met Gly Arg Val Thr Lys Arg Glu Ile Lys Ile Gly Pro Phe 2130 2135 2140		
Ala Asn Thr Thr Lys Tyr Ala Tyr Glu Tyr Asp Val Asp Gly Gln Leu 2145 2150 2155 2160		
Gln Thr Val Tyr Leu Asn Glu Lys Ile Met Trp Arg Tyr Asn Tyr Asp 2165 2170 2175		
Leu Asn Gly Asn Leu His Leu Leu Asn Pro Ser Asn Ser Ala Arg Leu 2180 2185 2190		
Thr Pro Leu Arg Tyr Asp Leu Arg Asp Arg Ile Thr Arg Leu Gly Asp 2195 2200 2205		
Val Gln Tyr Arg Leu Asp Glu Asp Gly Phe Leu Arg Gln Arg Gly Thr 2210 2215 2220		
Glu Ile Phe Glu Tyr Ser Ser Lys Gly Leu Leu Thr Arg Val Tyr Ser 2225 2230 2235 2240		
Lys Gly Ser Gly Trp Thr Val Ile Tyr Arg Tyr Asp Gly Leu Gly Arg 2245 2250 2255		
Arg Val Ser Ser Lys Thr Ser Leu Gly Gln His Leu Gln Phe Phe Tyr 2260 2265 2270		
Ala Asp Leu Thr Tyr Pro Thr Arg Ile Thr His Val Tyr Asn His Ser 2275 2280 2285		
Ser Ser Glu Ile Thr Ser Leu Tyr Tyr Asp Leu Gln Gly His Leu Phe 2290 2295 2300		
Ala Met Glu Ile Ser Ser Gly Asp Glu Phe Tyr Ile Ala Ser Asp Asn 2305 2310 2315 2320		
Thr Gly Thr Pro Leu Ala Val Phe Ser Ser Asn Gly Leu Met Leu Lys 2325 2330 2335		
Gln Ile Gln Tyr Thr Ala Tyr Gly Glu Ile Tyr Phe Asp Ser Asn Ile 2340 2345 2350		
Asp Phe Gln Leu Val Ile Gly Phe His Gly Gly Leu Tyr Asp Pro Leu 2355 2360 2365		
Thr Lys Leu Ile His Phe Gly Glu Arg Asp Tyr Asp Ile Leu Ala Gly 2370 2375 2380		
Arg Trp Thr Thr Pro Asp Ile Glu Ile Trp Lys Arg Ile Gly Lys Asp 2385 2390 2395 2400		
Pro Ala Pro Phe Asn Leu Tyr Met Phe Arg Asn Asn Asn Pro Ala Ser		

SECRET

				2405						2410							2415
Lys	Ile	His	Asp	Val	Lys	Asp	Tyr	Ile	Thr	Asp	Val	Asn	Ser	Trp	Leu		
				2420				2425						2430			
Val	Thr	Phe	Gly	Phe	His	Leu	His	Asn	Ala	Ile	Pro	Gly	Phe	Pro	Val		
				2435				2440						2445			
Pro	Lys	Phe	Asp	Leu	Thr	Glu	Pro	Ser	Tyr	Glu	Leu	Val	Lys	Ser	Gln		
				2450				2455						2460			
Gln	Trp	Asp	Asp	Ile	Pro	Pro	Ile	Phe	Gly	Val	Gln	Gln	Gln	Val	Ala		
				2465				2470						2475			2480
Arg	Gln	Ala	Lys	Ala	Phe	Leu	Ser	Leu	Gly	Lys	Met	Ala	Glu	Val	Gln		
				2485					2490						2495		
Val	Ser	Arg	Arg	Arg	Ala	Gly	Gly	Ala	Gln	Ser	Trp	Leu	Trp	Phe	Ala		
				2500				2505						2510			
Thr	Val	Lys	Ser	Leu	Ile	Gly	Lys	Gly	Val	Met	Leu	Ala	Val	Ser	Gln		
				2515				2520						2525			
Gly	Arg	Val	Gln	Thr	Asn	Val	Leu	Asn	Ile	Ala	Asn	Glu	Asp	Cys	Ile		
				2530				2535						2540			
Lys	Val	Ala	Ala	Val	Leu	Asn	Asn	Ala	Phe	Tyr	Leu	Glu	Asn	Leu	His		
				2545				2550						2555			2560
Phe	Thr	Ile	Glu	Gly	Lys	Asp	Thr	His	Tyr	Phe	Ile	Lys	Thr	Thr	Thr		
				2565					2570					2575			
Pro	Glu	Ser	Asp	Leu	Gly	Thr	Leu	Arg	Leu	Thr	Ser	Gly	Arg	Lys	Ala		
				2580				2585						2590			
Leu	Glu	Asn	Gly	Ile	Asn	Val	Thr	Val	Ser	Gln	Ser	Thr	Thr	Val	Val		
				2595				2600						2605			
Asn	Gly	Arg	Thr	Arg	Arg	Phe	Ala	Asp	Val	Glu	Met	Gln	Phe	Gly	Ala		
				2610				2615						2620			
Leu	Ala	Leu	His	Val	Arg	Tyr	Gly	Met	Thr	Leu	Asp	Glu	Glu	Lys	Ala		
				2625				2630						2635			2640
Arg	Ile	Leu	Glu	Gln	Ala	Arg	Gln	Arg	Ala	Leu	Ala	Arg	Ala	Trp	Ala		
				2645					2650					2655			
Arg	Glu	Gln	Gln	Arg	Val	Arg	Asp	Gly	Glu	Glu	Gly	Ala	Arg	Leu	Trp		
				2660				2665						2670			
Thr	Glu	Gly	Glu	Lys	Arg	Gln	Leu	Leu	Ser	Ala	Gly	Lys	Val	Gln	Gly		
				2675				2680						2685			
Tyr	Asp	Gly	Tyr	Tyr	Val	Leu	Ser	Val	Glu	Gln	Tyr	Pro	Glu	Leu	Ala		
				2690				2695						2700			
Asp	Ser	Ala	Asn	Asn	Ile	Gln	Phe	Leu	Arg	Gln	Ser	Glu	Ile	Gly	Arg		

2705

2710

2715

2720

Arg

<210> 39

<211> 8473

<212> DNA

<213> Homo sapiens

<400> 39

```

ttgacagaaa aaggcagtaa acgggggaatc tctttttttg aataaagaag aagaagaaat 60
aaagtacctg tcatcttgac aagtggcgga gcggaggagt caaggattat aaatgatcac 120
agccaggtec agctcgcccc gtgattgggc tctcccgca tctgcaccgg gggaagcgca 180
tgagaggcca atgagacttg aacctgagc ctaagttgtc accagcagga ctgatgtgca 240
cacagaagga atgaagtatg gatgtgaaag aacgcaggcc ttactgtctc ctgaccaaga 300
gcagacgaga gaaggaacgg cgctacacaa attcctccgc agacaatgag gagtgccggg 360
taccacacac gaagtcttac agttccagcg agacattgaa agcttttgat catgattcct 420
cgggctgct ttacggcaac agagtgaagg atttggttca cagagaagca gacgagttca 480
ctagacaaga gcaacctgca agcaatcaag gccagtctac cctgcagccc ttgccgcctt 540
cccataagca gcactctgca cagcatcatc catccatcac ttctctcaac agaaactccc 600
tgaccaatag aaggaaccag agtccggccc cgccggctgc tttgcccgcc gagctgcaaa 660
ccacaccgga gtcogtccag ctgcaggaca gctgggtcct tggcagtaat gtaccactgg 720
aaagcaggca tttcctattc aaaacaggaa caggtacaac gccactgttc agtactgcaa 780
ccccaggata cacaatggca tctggctctg tttattcacc acctactcgg ccactaccta 840
gaaacacct atcaagaagt gcttttaaat tcaagaagtc tcaaaagtac tgtagctgga 900
aatgcactgc actgtgtgcc gtaggggtct cgggtctcct ggcaatactc ctgtcttatt 960
ttatagcaat gcatctcttt ggctcaact ggcagctaca gcagactgaa aatgacacat 1020
ttgagaatgg aaaagtgaat tctgatacca tgccaacaaa cactgtgtca ttaccttctg 1080
gagacaatgg aaaattaggt ggatttacgc aagaaaataa caccatagat tccggagaac 1140
ttgatattgg ccgaagagca attcaagaga ttccctccgg gatcttctgg agatcacagc 1200
tcttcattga tcagccacag tttcttaaat tcaatatctc tcttcagaag gatgcattga 1260
ttggagtata tggccggaaa ggcttaccgc ctcccatcac tcagtatgac ttctgtggagc 1320
tctggatgg cagcaggctg attgccagag agcagcggag cctgcttgag acggagagag 1380
ccgggcggca ggcgagatcc gtcagccttc atgaggccgg ctttatccag tacttggatt 1440
ctggaatctg gcatctggct ttttataatg atgggaaaaa tgcagagcag gtgtctttta 1500
ataccattgt tatagagtct gtggtggaat gtccccgaaa ttgccatgga aatggagaat 1560
gcgtttcttg aacttgccat tgttttccag gatctctggg tccggattgt tcaagagccg 1620
cctgtccagt gttatgtagt ggcaacgggc agtactccaa gggccgctgc ctgtgtttca 1680
gcggtcgtaa gggcaccgag tgtgatgtgc cgactacca gtgtattgac ccacagtgtg 1740
ggggtcgtag gatttgatc atgggtctct gtgcttgcaa ctcaggatac aaaggaaaaa 1800
gttgtgaaga agctgactgt atagacctg ggtgttctaa tcatggtgtg tgtatccacg 1860
gggaatgtca ctgcagtcca ggatggggag gtagcaattg tgaaatactg aagaccatgt 1920
gtccagacca gtgctccggc cacggaacgt atcttcaaga aagtggctcc tgcacgtgtg 1980
accctaactg gactggccca gactgctcaa acgaaatatg ttctgtggac tgtggctcac 2040
acggcggttg catggggggg acgtgtcgct gtgaagaagg ctggacgggc ccagcctgta 2100
atcagagagc ctgccacccc cgctgtgccc agcacgggac ctgcaaggat ggcaagtgtg 2160
aatgcagcca gggctggaat ggagagcact gcactatcgc tcaactattg gataagatag 2220
ttaaagacaa gataggatat aaagaggggt gtcctgggtc gtgcaacagc aatggaagat 2280
gtacctgga ccaaaatggc ggacattgtg tgtgccagcc tggatggaga ggagcaggct 2340
gtgacgtagc catggagact ctttgcacag atagcaagga caatgaaggg gatggactca 2400
ttgactgcat ggatcccgat tgetgcctac agagtctctg ccagaatcag cctattgtc 2460
gggactgccc ggatcctcag gacatcatta gccaaagcct tcaatcgctc tctcagcaag 2520
ctgccaaatc cttttatgat cgaatcagtt tccttatagg atctgatagc acccatgtta 2580
tacctggaga aagtccttcc aataagagcc ttgcatctgt catcagaggc caagtactga 2640
ctgctgatgg aactccactt attggagtaa atgtctcgtt tttccattac ccagaatatg 2700

```

gatatactat	tacccgccag	gacggaatgt	ttgacttggg	ggcaaatggg	ggggcctctc	2760
taactttggg	atttgaacga	tccccattcc	tcactcagta	tcatactgtg	tggattccat	2820
ggaatgtctt	ttatgtgatg	gataccctag	tcattggagaa	agaagagaat	gacattccca	2880
gctgtgatct	gagtggattc	gtgaggccaa	atcccatcat	tgtgtcatca	cctttatcca	2940
cctttttcag	atctttctct	gaagacagtc	ccatcattcc	cgaaacacag	gtactccacg	3000
aggaacttac	aattccagga	acaqatttga	aactctccta	cttgaqttec	agagctgcag	3060
ggtataagtc	agttctcaag	atcaccatga	cccagtcctat	tattccattt	aatttaataga	3120
aqqtcatct	tatqgtagct	qtaqtaqgaa	gactcttcca	aaagtqqtct	cctgcctcac	3180
caaacttggc	ctatactttc	atatgggata	aaacagatgc	atataatcag	aaagtctatg	3240
qtctatctga	aactqtttqt	tcaatttqat	atqatgatga	qtctatctga	qacctgactc	3300
tgtgggaaaa	gaggactgcc	attctgcagg	gctatgaatt	ggatgcgtcc	aacatgggtg	3360
gctggacatt	agataaacat	cacgtgctgg	atgtacagaa	cggatatactg	tacaagggaa	3420
acggggaaaa	ccagttcatc	tcccagcagc	ctccagtcgt	gagtagcatc	atgggcaatg	3480
ggcgaaggcg	cagcattttc	tggcccagtt	gcaatgggtca	agctgatggg	aacaagttac	3540
tgyccccagt	ggcgctagct	tgtgggacgc	atggcagtcct	gtacgtaggc	gatttcaact	3600
acgtgcggcg	gatatttccg	tctggaaatg	taacaagtgt	cttagaacta	agaaataaag	3660
attttagaca	tagcagcaac	ccagtcata	gatactacct	tgcaacggat	ccagtcacgg	3720
gagatctgta	cgtttctgac	acaaacaccc	gcagaattta	tgcgccaaag	tcacttacgg	3780
gggcaaaaaga	cttgactaaa	aatgcagaag	tgcgtgcagg	gacaggggag	caatgccttc	3840
cgtttgacga	ggcgagatgt	ggggatggag	ggaaggccgt	ggaagccaca	ctcatgagtc	3900
ccaaagggaat	ggcagttgat	aagaatggat	taatctactt	tgttgatgga	accatgatta	3960
ggaaagtgtga	ccaaaatgga	atcatatcaa	ctcttctggg	ctctaacgat	ttgacttcag	4020
ccagaccttt	aacttgtgac	accagcatgc	acatcagcca	ggtacgtctg	gaatggccca	4080
ctgacctagc	cattaaccct	atggataact	ccatttatgt	cctggataat	aatgtagttt	4140
tacagatcac	tgaataatcgt	caagtctgca	ttgctgctgg	acggcccatg	cactgtcagg	4200
ttcccgaggt	ggaatatcct	gtggggaagc	acgcggtgca	gacaacactg	gaatcagcca	4260
ctgccattgc	tgtgtcctac	agtggggtcc	tgtacattac	tgaactgat	gagaagaaaa	4320
ttaaccggat	aaggcagggtc	acaacagatg	gagaaatctc	cttagtggcc	ggaatacctt	4380
cagagtgtga	ctgcaaaaaat	gatgccaaact	gtgactgtta	ccagagtggg	gatggctacg	4440
ccaaggatgc	caaactcagt	gccccatcct	cctggctgc	ttctccagat	ggtacactgt	4500
atattgcaga	tctaggaat	atccggatcc	gggctgtgtc	aaagaataag	cctttactta	4560
actctatgaa	cttctatgaa	gttgcgtctc	caactgatca	agaactctac	atctttgaca	4620
tcaatggtac	tcaccaatat	actgtaagtt	tagtcaactg	tgattacctt	tacaatttta	4680
gctacagcaa	tgacaatgat	attactgctg	tgacagacag	caatggcaac	acccttagaa	4740
ttagacggga	cccaaatcgc	atgccagttc	gagtggtgtc	tectgataac	caagtgatat	4800
ggttgacaat	aggaacaaaat	ggatgtttga	aaggcatgac	tgctcaagga	ctggaattag	4860
ttttgtttac	ttaccatggc	aatagtggcc	ttttagccac	taaaagtgat	gaaactggat	4920
ggacaacggt	ttttgactat	gacagtgaag	gtcgtctgac	aaatgttacg	tttccaaactg	4980
gagtygtcat	aaacctgcat	ggggacatgg	acaaggctat	cacagtggac	attgagtcac	5040
ctagccgaga	agaagatgtc	agcatcactt	caaactctgtc	ctcgatcgat	tctttctaca	5100
ccatggttca	agatcagtta	agaaacagct	accagattgg	ttatgacggc	tccttcagaa	5160
ttatctacgc	cagtggcctg	gactcacact	accaaacaga	gccgcacggt	ctggctggca	5220
ccgctaatec	gacggttgcc	aaaagaaaca	tgactttgcc	tggcgagaac	ggtcaaaact	5280
tggtggaatg	gagattccga	aaagagcaag	cccaaggga	agtcaatgtc	tttggccgca	5340
agctcagggg	taatggcaga	aacctccttt	cagttgactt	tgatcgaaca	acaaagacag	5400
aaaagatcta	tgacgaccac	cgtaaatctt	tactgaggat	cgctacgac	acgtctgggc	5460
acccgactct	ctggctgcca	agcagcaagc	tgatggcctg	caatgtcacc	tattcatcca	5520
caggtcaaat	tgccagcatc	cagcgaggca	ccactagcga	gaaagtagat	tatgacggac	5580
aggggaggat	cgtgtctcgg	gtctttgctg	atggtaaaac	atggagttac	acatatttag	5640
aaaagtccat	ggtttctctg	cttcatagcc	agcggcagta	catcttcgaa	tacgatatgt	5700
gggaccgcct	gtctgcccac	accatgccca	gtgtggctcg	ccacaccatg	cagaccatcc	5760
gctccattgg	taactacgc	aacatataca	acccccgga	aagcaacgcc	tocatcatca	5820
cggactacaa	cgaggaaggg	ctgcttctac	aaacagcttt	cttgggtaca	agtcggaggg	5880
tcttattcaa	atacagaagg	cagactaggc	tctcagaaat	tttatatgat	agcacaagag	5940
tcagttttac	ctatgatgaa	acagcaggag	tcctaaagac	agtaaacctc	cagagtgatg	6000
gttttatttg	caccattaga	tacaggcaaa	ttggtccctt	gattgacagg	cagattttcc	6060
gctttagtga	agatgggatg	gtaaatgcaa	gatttgacta	tagctatgac	aacagcttcc	6120

gagtgaccag catgcaggggt gtgatcaatg aaacgccact gcctattgat ctgtatcagt 6180
 ttgatgacat ttctggcaaa gttgagcagt ttggaaagtt tggagttata tattatgata 6240
 ttaaccagat cattttctaca gctgtaatga cctatacgaa gcactttgat gtcctatggcc 6300
 gtatcaagga gattcaatat gagatattca ggctgctcat gtactggatt acaattcagt 6360
 atgataacat gggctcgggta accaagagag agattaaaaat agggcccttt gccaacacca 6420
 ccaaatatgc ttatgaatat gatgttgatg gacagctcca aacagtttac ctcaatgaaa 6480
 agataatgtg gcggtacaac tacgatctga atggaaacct ccattttactg aaccaagta 6540
 acagtgcqcaq tctqacaccc cttcgtctatg acctgcqaga caqaatcact cgaactggtg 6600
 atgttcaata tcgggttgat gaagatgggtt tectacgtca aaggggcacg gaaatctttg 6660
 aatataqctc caaggggctt ctaactcqaq tttacaqtaa aqccagtqcc tggacaqtga 6720
 tctaccgtta tgacggcctg ggaaggcgtg tttctagcaa aaccagtcta ggacagcacc 6780
 tgcagttttt ttatgctgac ttaacttatc ccactaggat tactcatgtc tacaaccatt 6840
 cgagttcaga aattacctcc ctgtattatg atctccaagg acatcttttt gccatggaaa 6900
 tcagcagtg ggaatgaattc tatattgcat cggataaacac agggacacca ctggctgtgt 6960
 tcagtagcaa tgggctttatg ctgaaacaga ttcagtaacac tgcataatggg gaaatctatt 7020
 ttgactctaa tattgacttt caactggtaa ttggatttca tgggtggcctg tatgacccac 7080
 tcaccaaatt aatccacttt ggagaaagag attatgacat tttggcagga cgggtggacaa 7140
 cacctgacat agaaatctgg aaaagaattg ggaaggaccc agctcctttt aacttgtaca 7200
 tgttttaggaa taacaacctt gcaagcaaaa tccatgacgt gaaagattac atcacagatg 7260
 ttaacagctg gctgggtgaca tttgggttcc atctgcacaa tgctattcct ggattccctg 7320
 ttcccaaatt tgatttaaca gaaccttctt aagaacttgt gaagagtcag cagtgggatg 7380
 atataccgac catcttcgga gtccagcagc aagtgggcgcg gcaggccaag gccttctctg 7440
 cgctggggaa gatggcgcgag gtgcaggtga gccgggcgcg gccgggcgcg gcgcagtcct 7500
 ggctgtggtt gcgccaggtc aagtcgctga tcggcaaggg cgtcatgctg gccgtcagcc 7560
 agggccgcgt gcagaccaac gtgctcaaca tcgccaacga ggactgcac aaggtggcgg 7620
 ccgtgctcaa caacgccttc tacctggaga acctgcact caccatcgag ggcaaggaca 7680
 cgcactactt catcaagacc accacgcccg agagcgacct gggcacgctg cggttgacca 7740
 gcggccgcaa ggcgtcggag aacggcatca acgtgacggt gtcgcagtc accacggttg 7800
 tgaacggcag gacgcgcag ttcgcggacg tggagatgca gttcggcgcg ctggcgctgc 7860
 acgtgcgcta cggcatgacc ctggacgagg agaaggcgcg catcctggag caggcgcggc 7920
 agcgcgcgct cggccggggc tgggcgcgcg agcagcagc cgtgcgcgac ggcgaggagg 7980
 gcgcgcgcct ctggacggag ggcgagaagc ggcagctgct gagcgccggc aaggtgcagg 8040
 gctacgacgg gtactacgta ctctcgggtg agcagtaccc cgagctggcc gacagcgcca 8100
 acaacatcca gttctgcgg cagagcgaga tcggcaggag gtaacgccc ggcgcgccc 8160
 gccgagccgc tcacgcctg cccacattgt cctgtggcac aaccgagtg ggactctcca 8220
 acgccaaga gccttctcc cgggggaatg agactgctgt tacgacccac acccacaccg 8280
 cgaaaacaag gaccgctttt ttcgaatga ccttaaaggat gatcggtttt aacgaatatg 8340
 tttacatatg catagcgctg cactcagtcg gactgaacgt agccagagga aaaaaaatc 8400
 atcaaggaca aaggcctcga cctgttgccg tgggcccgtc gttccttcta ggcactgtat 8460
 ttaactaact tta 8473

<210> 40

<211> 2628

<212> PRT

<213> Homo sapiens

<400> 40

Met Asp Val Lys Glu Arg Arg Pro Tyr Cys Ser Leu Thr Lys Ser Arg
 1 5 10 15

Arg Glu Lys Glu Arg Arg Tyr Thr Asn Ser Ser Ala Asp Asn Glu Glu
 20 25 30

Cys Arg Val Pro Thr Gln Lys Ser Tyr Ser Ser Ser Glu Thr Leu Lys
 35 40 45

Ala Phe Asp His Asp Ser Ser Arg Leu Leu Tyr Gly Asn Arg Val Lys
50 55 60

Asp Leu Val His Arg Glu Ala Asp Glu Phe Thr Arg Gln Glu Gln Pro
65 70 75 80

Ala Ser Asn Gln Gly Gln Ser Thr Leu Gln Pro Leu Pro Pro Ser His
85 90 95

Lvs Gln His Ser Ala Gln His His Pro Ser Ile Thr Ser Leu Asn Arg
100 105 110

Asn Ser Leu Thr Asn Arg Arg Asn Gln Ser Pro Ala Pro Pro Ala Ala
115 120 125

Leu Pro Ala Glu Leu Gln Thr Thr Pro Glu Ser Val Gln Leu Gln Asp
130 135 140

Ser Trp Val Leu Gly Ser Asn Val Pro Leu Glu Ser Arg His Phe Leu
145 150 155 160

Phe Lys Thr Gly Thr Gly Thr Thr Pro Leu Phe Ser Thr Ala Thr Pro
165 170 175

Gly Tyr Thr Met Ala Ser Gly Ser Val Tyr Ser Pro Pro Thr Arg Pro
180 185 190

Leu Pro Arg Asn Thr Leu Ser Arg Ser Ala Phe Lys Phe Lys Lys Ser
195 200 205

Ser Lys Tyr Cys Ser Trp Lys Cys Thr Ala Leu Cys Ala Val Gly Val
210 215 220

Ser Val Leu Leu Ala Ile Leu Leu Ser Tyr Phe Ile Ala Met His Leu
225 230 235 240

Phe Gly Leu Asn Trp Gln Leu Gln Gln Thr Glu Asn Asp Thr Phe Glu
245 250 255

Asn Gly Lys Val Asn Ser Asp Thr Met Pro Thr Asn Thr Val Ser Leu
260 265 270

Pro Ser Gly Asp Asn Gly Lys Leu Gly Gly Phe Thr Gln Glu Asn Asn
275 280 285

Thr Ile Asp Ser Gly Glu Leu Asp Ile Gly Arg Arg Ala Ile Gln Glu
290 295 300

Ile Pro Pro Gly Ile Phe Trp Arg Ser Gln Leu Phe Ile Asp Gln Pro
305 310 315 320

Gln Phe Leu Lys Phe Asn Ile Ser Leu Gln Lys Asp Ala Leu Ile Gly
325 330 335

Val Tyr Gly Arg Lys Gly Leu Pro Pro Ser His Thr Gln Tyr Asp Phe
340 345 350

Val Glu Leu Leu Asp Gly Ser Arg Leu Ile Ala Arg Glu Gln Arg Ser
355 360 365

Leu Leu Glu Thr Glu Arg Ala Gly Arg Gln Ala Arg Ser Val Ser Leu
370 375 380

His Glu Ala Gly Phe Ile Gln Tyr Leu Asp Ser Gly Ile Trp His Leu
385 390 395 400

Ala Phe Trp Asn Asp Gly Lys Asn Ala Glu Gln Val Ser Phe Asn Thr
405 410 415

Ile Val Ile Glu Ser Val Val Glu Cys Pro Arg Asn Cys His Gly Asn
420 425 430

Gly Glu Cys Val Ser Gly Thr Cys His Cys Phe Pro Gly Phe Leu Gly
435 440 445

Pro Asp Cys Ser Arg Ala Ala Cys Pro Val Leu Cys Ser Gly Asn Gly
450 455 460

Gln Tyr Ser Lys Gly Arg Cys Leu Cys Phe Ser Gly Trp Lys Gly Thr
465 470 475 480

Glu Cys Asp Val Pro Thr Thr Gln Cys Ile Asp Pro Gln Cys Gly Gly
485 490 495

Arg Gly Ile Cys Ile Met Gly Ser Cys Ala Cys Asn Ser Gly Tyr Lys
500 505 510

Gly Lys Ser Cys Glu Glu Ala Asp Cys Ile Asp Pro Gly Cys Ser Asn
515 520 525

His Gly Val Cys Ile His Gly Glu Cys His Cys Ser Pro Gly Trp Gly
530 535 540

Gly Ser Asn Cys Glu Ile Leu Lys Thr Met Cys Pro Asp Gln Cys Ser
545 550 555 560

Gly His Gly Thr Tyr Leu Gln Glu Ser Gly Ser Cys Thr Cys Asp Pro
565 570 575

Asn Trp Thr Gly Pro Asp Cys Ser Asn Glu Ile Cys Ser Val Asp Cys
580 585 590

Gly Ser His Gly Val Cys Met Gly Gly Thr Cys Arg Cys Glu Glu Gly
595 600 605

Trp Thr Gly Pro Ala Cys Asn Gln Arg Ala Cys His Pro Arg Cys Ala
610 615 620

Glu His Gly Thr Cys Lys Asp Gly Lys Cys Glu Cys Ser Gln Gly Trp
625 630 635 640

Asn Gly Glu His Cys Thr Ile Ala His Tyr Leu Asp Lys Ile Val Lys
645 650 655

1003333 11 30 15 00

Ala Val Val Gly Arg Leu Phe Gln Lys Trp Phe Pro Ala Ser Pro Asn
965 970 975

Leu Ala Tyr Thr Phe Ile Trp Asp Lys Thr Asp Ala Tyr Asn Gln Lys
980 985 990

Val Tyr Gly Leu Ser Glu Ala Val Val Ser Val Gly Tyr Glu Tyr Glu
995 1000 1005

Ser Cys Leu Asp Leu Thr Leu Trp Glu Lys Arg Thr Ala Ile Leu Gln
1010 1015 1020

Gly Tyr Glu Leu Asp Ala Ser Asn Met Gly Gly Trp Thr Leu Asp Lys
1025 1030 1035 1040

His His Val Leu Asp Val Gln Asn Gly Ile Leu Tyr Lys Gly Asn Gly
1045 1050 1055

Glu Asn Gln Phe Ile Ser Gln Gln Pro Pro Val Val Ser Ser Ile Met
1060 1065 1070

Gly Asn Gly Arg Arg Arg Ser Ile Ser Cys Pro Ser Cys Asn Gly Gln
1075 1080 1085

Ala Asp Gly Asn Lys Leu Leu Ala Pro Val Ala Leu Ala Cys Gly Ile
1090 1095 1100

Asp Gly Ser Leu Tyr Val Gly Asp Phe Asn Tyr Val Arg Arg Ile Phe
1105 1110 1115 1120

Pro Ser Gly Asn Val Thr Ser Val Leu Glu Leu Arg Asn Lys Asp Phe
1125 1130 1135

Arg His Ser Ser Asn Pro Ala His Arg Tyr Tyr Leu Ala Thr Asp Pro
1140 1145 1150

Val Thr Gly Asp Leu Tyr Val Ser Asp Thr Asn Thr Arg Arg Ile Tyr
1155 1160 1165

Arg Pro Lys Ser Leu Thr Gly Ala Lys Asp Leu Thr Lys Asn Ala Glu
1170 1175 1180

Val Val Ala Gly Thr Gly Glu Gln Cys Leu Pro Phe Asp Glu Ala Arg
1185 1190 1195 1200

Cys Gly Asp Gly Gly Lys Ala Val Glu Ala Thr Leu Met Ser Pro Lys
1205 1210 1215

Gly Met Ala Val Asp Lys Asn Gly Leu Ile Tyr Phe Val Asp Gly Thr
1220 1225 1230

Met Ile Arg Lys Val Asp Gln Asn Gly Ile Ile Ser Thr Leu Leu Gly
1235 1240 1245

Ser Asn Asp Leu Thr Ser Ala Arg Pro Leu Thr Cys Asp Thr Ser Met
1250 1255 1260

SECRET

Arg Arg Val Leu Phe Lys Tyr Arg Arg Gln Thr Arg Leu Ser Glu Ile
1875 1880 1885

Leu Tyr Asp Ser Thr Arg Val Ser Phe Thr Tyr Asp Glu Thr Ala Gly
1890 1895 1900

Val Leu Lys Thr Val Asn Leu Gln Ser Asp Gly Phe Ile Cys Thr Ile
1905 1910 1915 1920

Arg Tyr Arg Gln Ile Gly Pro Leu Ile Asp Arg Gln Ile Phe Arg Phe
1925 1930 1935

Ser Glu Asp Gly Met Val Asn Ala Arg Phe Asp Tyr Ser Tyr Asp Asn
1940 1945 1950

Ser Phe Arg Val Thr Ser Met Gln Gly Val Ile Asn Glu Thr Pro Leu
1955 1960 1965

Pro Ile Asp Leu Tyr Gln Phe Asp Asp Ile Ser Gly Lys Val Glu Gln
1970 1975 1980

Phe Gly Lys Phe Gly Val Ile Tyr Tyr Asp Ile Asn Gln Ile Ile Ser
1985 1990 1995 2000

Thr Ala Val Met Thr Tyr Thr Lys His Phe Asp Ala His Gly Arg Ile
2005 2010 2015

Lys Glu Ile Gln Tyr Glu Ile Phe Arg Ser Leu Met Tyr Trp Ile Thr
2020 2025 2030

Ile Gln Tyr Asp Asn Met Gly Arg Val Thr Lys Arg Glu Ile Lys Ile
2035 2040 2045

Gly Pro Phe Ala Asn Thr Thr Lys Tyr Ala Tyr Glu Tyr Asp Val Asp
2050 2055 2060

Gly Gln Leu Gln Thr Val Tyr Leu Asn Glu Lys Ile Met Trp Arg Tyr
2065 2070 2075 2080

Asn Tyr Asp Leu Asn Gly Asn Leu His Leu Leu Asn Pro Ser Asn Ser
2085 2090 2095

Ala Arg Leu Thr Pro Leu Arg Tyr Asp Leu Arg Asp Arg Ile Thr Arg
2100 2105 2110

Leu Gly Asp Val Gln Tyr Arg Leu Asp Glu Asp Gly Phe Leu Arg Gln
2115 2120 2125

Arg Gly Thr Glu Ile Phe Glu Tyr Ser Ser Lys Gly Leu Leu Thr Arg
2130 2135 2140

Val Tyr Ser Lys Gly Ser Gly Trp Thr Val Ile Tyr Arg Tyr Asp Gly
2145 2150 2155 2160

Leu Gly Arg Arg Val Ser Ser Lys Thr Ser Leu Gly Gln His Leu Gln
2165 2170 2175

ALBANY, N.Y., Dec. 12 (AP) —

Thr Thr Thr Pro Glu Ser Asp Leu Gly Thr Leu Arg Leu Thr Ser Gly
2485 2490 2495

Arg Lys Ala Leu Glu Asn Gly Ile Asn Val Thr Val Ser Gln Ser Thr
2500 2505 2510

Thr Val Val Asn Gly Arg Thr Arg Arg Phe Ala Asp Val Glu Met Gln
2515 2520 2525

Phe Gly Ala Leu Ala Leu His Val Arg Trp Gly Met Thr Leu Asp Glu
2530 2535 2540

Glu Lys Ala Arg Ile Leu Glu Gln Ala Arg Gln Arg Ala Leu Ala Arg
2545 2550 2555 2560

Ala Trp Ala Arg Glu Gln Gln Arg Val Arg Asp Gly Glu Glu Gly Ala
2565 2570 2575

Arg Leu Trp Thr Glu Gly Glu Lys Arg Gln Leu Leu Ser Ala Gly Lys
2580 2585 2590

Val Gln Gly Tyr Asp Gly Tyr Tyr Val Leu Ser Val Glu Gln Tyr Pro
2595 2600 2605

Glu Leu Ala Asp Ser Ala Asn Asn Ile Gln Phe Leu Arg Gln Ser Glu
2610 2615 2620

Ile Gly Arg Arg
2625

<210> 41
<211> 8487
<212> DNA
<213> Homo.sapiens

<400> 41
actcactata gggctcgagc ggccgcccgg gcaggtccca tttgacagaa aaaggcagta 60
aacggggaat ctcttttttt gaataaagaa gaagaagaaa taaagtacct gtcattctga 120
caagtggcgg agcggaggag tcaaggatta taaatgatca cagccaggtc cagctcgccc 180
cgtgattggg ctctcccgcg atctgcaccg ggggaagcgc atgagaggcc aatgagactt 240
gaacctgag cctaagttgt caccagcagg actgatgtgc acacagaagg aatgaagtat 300
ggatgtgaaa gaacgcaggc cttactgttc cctgaccaag agcagacgag agaaggaacg 360
gcgctacaca aattcctccg cagacaatga ggagtgcgg gtaccacacac agaagtccta 420
cagttccagc gagacattga aagcttttga tcatgattcc tcgcggtgc tttacggcaa 480
cagagtgaag gatttggttc acagagaagc agacgagttc actagacaag agcaacctgc 540
aagcaatcaa ggccagtcta ccctgcagcc cttgcgcctc tcccataagc agcactctgc 600
acagcatcat ccaccatca cttctctcaa cagaaactcc ctgaccaata gaaggaacca 660
gagtcgggcc cgcgggctg ctttgcggcg cgagctgcaa accacaccgg agtcggtcca 720
gctgcaggac agctgggttc ttggcagtaa tgtaccactg gaaagcaggc atttctatt 780
caaaacagga acaggtaaa cgccactgtt cagtactgca accccaggat acacaatggc 840
atctggctct gtttattcac cactactcg gccactacct agaaacaccc tatcaagaag 900
tgcttttaaa ttcaagaagt cttcaaagta ctgtagctgg aaatgcactg cactgtgtgc 960
cgtaggggtc tcggtgtcc tggaatact cctgtcttat tttatagcaa tgcattcttt 1020
tggcctcaac tggcagctac agcagactga aaatgacaca tttgagaatg gaaaagtga 1080
ttctgatacc atgccaacaa acactgtgtc attacattct ggagacaatg gaaaattagg 1140
tggatttacg caagaaaata acaccataga ttccggagaa cttgatattg gccgaagagc 1200

100330Z JUL 68 404602

tggatactcac	caatatactg	taagtttagt	cactggtgat	tacctttaca	attttagcta	4680
cagcaatgac	aatgatahta	ctgctgtgac	agacagcaat	ggcaacaccc	ttagaattag	4740
acgggaccca	aatcgcatgc	cagttcgagt	ggtgtctcct	gataaccaag	tgatatggtt	4800
gacaatatgga	acaaatggat	gtttgaaagg	catgactgct	caaggactgg	aattagtttt	4860
gttttacttac	gactggcaata	gtggcctttt	agccactaaa	agtgatgaaa	ctggatggac	4920
aacggtttttt	gactgtagaca	gtgaaggctg	ttctgacaaat	gttacggttc	caactggagt	4980
ggtcacaaac	ctgcatgggg	acatggacaa	ggctatcaca	gtggacattg	agtcactctag	5040
ccgagaagaa	gatgtcaqca	tcacttcaaa	tctgtctctc	atcgaattctt	tctacaccat	5100
ggttcaagat	cagttaagaa	acagctacca	gattgggttat	gacggctccc	tcagaattat	5160
ctacqccact	acccctgaat	cacactacca	aacaqaaccc	cacgtttctgc	ctqccaccgc	5220
taattccgagc	gttgccaaaa	gaaacatgac	tttgccctggc	gagaacgggtc	aaaacttgggt	5280
ggaatggaga	ttccgaaaa	gcacagccca	aggggaagtc	aatgtctttg	gcgcgaagct	5340
cagggttaat	ggcgaaaaac	tcccttcagt	tgactttgat	cgaacaacaa	agacagaaaa	5400
gatetatgac	gaccaccgta	aattttctact	gaggatcgcc	tacgacacgt	ctgggcaccc	5460
gactctctg	ctgccaagca	gcaagctgat	ggcgcgtcaat	gtcacctatt	catccacagg	5520
tcaaattgcc	agcatccagc	gaggcaccac	tagcgagaaa	gtagattatg	acggacaggg	5580
gaggatcgtg	tctcgggtct	ttgctgatgg	taaaacatgg	agttacacat	atttagaaaa	5640
gtccatgggt	ctctctgctt	atagccagcg	cgactacatg	ttcgaatacg	atatgtggga	5700
ccgcctgtct	gccatcacca	tgcccagtgt	ggctcgccac	acctatcgaa	ccatccgctc	5760
cattggctac	taccgcaaca	tatacaaccc	cccgaaagc	aacgcctcca	tcatacggga	5820
ctacaacgag	gaagggctgc	ttctacaaac	agctttcttg	ggtacaagtc	ggaggggtctt	5880
attcaaatac	agaaggcaga	ctaggctctc	agaaatttta	tatgatagca	caagagtcag	5940
ttttacctat	gatgaaacag	caggagtcc	aaagacagta	aacctccaga	gtgatggttt	6000
tatttgcacc	attagatata	ggcaaatattg	ttccctgatt	gacaggcaga	gtttccgctt	6060
tagtgaagat	atggatggtaa	atgcaagatt	tgactatagc	tatgacaaca	tcttctcgagt	6120
gaccagcatg	cagggtgtga	tcaatgaaac	gccactgect	attgatctgt	atcagtttga	6180
tgacatttct	ggcaaagtgt	agcagtttgg	aaagtttgga	gttatatatt	atgatattaa	6240
ccagatcatt	tctacagctg	taatgaccta	tacgaagcac	tttgatgctc	atggccgtat	6300
caaggagatt	caatatgaga	tattcaggct	gctcatgtac	tggattacca	ttcagtatga	6360
taacctgggt	cggttaacca	agagagagat	taaaatagg	ccctttgcc	acaccaccaa	6420
atatgcttat	gaatatgatg	ttgatggaca	gctccaaca	gtttacctca	atgaaaagat	6480
aatgtggcgg	tacaactacg	atctgaatgg	aaacctccat	ttactgaacc	caagtaacag	6540
tgcgctctg	acaccccttc	gctatgacct	gcgagacaga	atcactcgac	tgggtgatgt	6600
tcaatatcgg	ttggatgaag	atggtttcct	acgtcaaa	ggcacggaaa	tctttgaata	6660
tagcttcaag	gggcttctaa	ctcgagttta	cagtaaaagg	agtggctgga	cagtgatcta	6720
cggtttagac	ggccttggaa	ggcgtgtttc	tagcaaaaac	agcttaggac	agcacctgca	6780
tgttttttat	gctgacttta	tattctccac	taggattact	catgtctaca	accattcgag	6840
ttcagaaatt	acctccctgt	attatgatct	ccaaggacat	ctttttgcc	tggaaatcag	6900
cagtggggat	gaattctata	ttgcatcgga	taacacaggy	acaccactgg	ctgtgttcag	6960
tagcaatggg	cttatgtctg	aacagattca	gtacactgca	tatggggaaa	tctattttga	7020
ctctaataat	gactttcaac	tggtaattgg	atttcatggt	ggcctgtatg	accaccacac	7080
caaattaatc	cactttggag	aaagagatta	tgacattttg	gcaggacgg	ggacaacacc	7140
tgacatagaa	atctggaaaa	gaattgggaa	tgaccagct	ccctttaa	gtacatgtt	7200
taggaataac	aaccttgcaa	gcaaaatcca	tgacgtgaaa	gattacatca	cagatgttaa	7260
cagctggctg	gtgacatttg	gtttccatct	gcacaatgct	attctctggat	tcctgttcc	7320
caaatttgat	ttaacagaac	cttcttacga	acttgtgaag	agtcagcagt	gggatgat	7380
accgcccatc	ttcggagtcc	agcagcaagt	ggcgcgga	gccaaaggct	tcctgtcgt	7440
ggggaagatg	gccgaggtgc	aggtgagccg	gcgcggcg	ggcgcgcg	agtcctggct	7500
ctggtttcgcc	acggtcaagt	cgtgatccg	caagggcgct	atgtgtggcg	tcagccaggg	7560
ccgcgtgcag	accaacgtgc	tcaacatcgc	caacgaggac	tgcatcaagg	tggcgcgct	7620
gctcaacaac	gccttctacc	tggagaacct	gcacttcacc	atcgagggca	aggacacgca	7680
ctacttcatc	aagaccacca	cgcccgagag	cgacctgggc	acgctgcggt	tgaccagcgg	7740
ccgcaaggcg	ctggagaacg	gcatcaacgt	gacggtgtcg	cagtcacca	cggtggtgaa	7800
cggcaggagc	cgcaggttcg	cggacgtgga	gatgcagttc	ggcgcgctgg	cgctgcacgt	7860
gcgctacggc	atgaccttgg	acgagagaaa	ggcgcgcatc	ctggagcagg	cgcggcagcg	7920
cgcgctcgcc	cgggctggg	cgcgcgagca	gcagcgcgtg	cgcgcagcg	aggaggcgcg	7980
gcgcctctgg	acggaggcg	agaagcgga	gctgctgagc	gcgggcaagg	tgcagggcta	8040

cgacgggtac tacgtactct cgggtggagca gtaccccgag ctggccgaca gcgccaacaa 8100
catccagttc ctgcggcaga gcgagatcgg caggaggtaa cggccgggcc gcgcccgcgc 8160
agccgctcac gccctgccca cattgtcctg tggcacaacc cgagtgggac tctccaacgc 8220
ccaagagcct tcttcccggg ggaatgagac tgctgttacg acccacaccc acaccgcgaa 8280
aacaaggacc gcttttttcc gaatgacctt aaagggtgatc ggctttaacg aatatgttta 8340
catatgcata gcgctgcact cagtcggact gaacgtagcc agaggaaaaa aaaatcatca 8400
aggacaaagg cctcgacctg ttgcgctggg ccgtctgttc cttctaggca ctgtatttaa 8460
ctaactttaa aaaaaaaaaa aaaaaaaq 8487

<210> 42
<211> 2613
<212> PRP
<213> Homo sapiens

<400> 42
Met Asp Val Lys Glu Arg Arg Pro Tyr Cys Ser Leu Thr Lys Ser Arg
1 5 10 15
Arg Glu Lys Glu Arg Arg Tyr Thr Asn Ser Ser Ala Asp Asn Glu Glu
20 25 30
Cys Arg Val Pro Thr Gln Lys Ser Tyr Ser Ser Ser Glu Thr Leu Lys
35 40 45
Ala Phe Asp His Asp Ser Ser Arg Leu Leu Tyr Gly Asn Arg Val Lys
50 55 60
Asp Leu Val His Arg Glu Ala Asp Glu Phe Thr Arg Gln Glu Gln Pro
65 70 75 80
Ala Ser Asn Gln Gly Gln Ser Thr Leu Gln Pro Leu Pro Pro Ser His
85 90 95
Lys Gln His Ser Ala Gln His His Pro Ser Ile Thr Ser Leu Asn Arg
100 105 110
Asn Ser Leu Thr Asn Arg Arg Asn Gln Ser Pro Ala Pro Pro Ala Ala
115 120 125
Leu Pro Ala Glu Leu Gln Thr Thr Pro Glu Ser Val Gln Leu Gln Asp
130 135 140
Ser Trp Val Leu Gly Ser Asn Val Pro Leu Glu Ser Arg His Phe Leu
145 150 155 160
Phe Lys Thr Gly Thr Gly Thr Thr Pro Leu Phe Ser Thr Ala Thr Pro
165 170 175
Gly Tyr Thr Met Ala Ser Gly Ser Val Tyr Ser Pro Pro Thr Arg Pro
180 185 190
Leu Pro Arg Asn Thr Leu Ser Arg Ser Ala Phe Lys Phe Lys Lys Ser
195 200 205
Ser Lys Tyr Cys Ser Trp Lys Cys Thr Ala Leu Cys Ala Val Gly Val
210 215 220

[illegible]

Ser Val Leu Leu Ala Ile Leu Leu Ser Tyr Phe Ile Ala Met His Leu
225 230 235 240

Phe Gly Leu Asn Trp Gln Leu Gln Gln Thr Glu Asn Asp Thr Phe Glu
245 250 255

Asn Gly Lys Val Asn Ser Asp Thr Met Pro Thr Asn Thr Val Ser Leu
260 265 270

Pro Ser Gly Asp Asn Gly Lys Leu Gly Gly Phe Thr Gln Glu Asn Asn
275 280 285

Thr Ile Asp Ser Gly Glu Leu Asp Ile Gly Arg Arg Ala Ile Gln Glu
290 295 300

Ile Pro Pro Gly Ile Phe Trp Arg Ser Gln Leu Phe Ile Asp Gln Pro
305 310 315 320

Gln Phe Leu Lys Phe Asn Ile Ser Leu Gln Lys Asp Ala Leu Ile Gly
325 330 335

Val Tyr Gly Arg Lys Gly Leu Pro Pro Ser His Thr Gln Tyr Asp Phe
340 345 350

Val Glu Leu Leu Asp Gly Ser Arg Leu Ile Ala Arg Glu Gln Arg Ser
355 360 365

Leu Leu Glu Thr Glu Arg Ala Gly Arg Gln Ala Arg Ser Val Ser Leu
370 375 380

His Glu Ala Gly Phe Ile Gln Tyr Leu Asp Ser Gly Ile Trp His Leu
385 390 395 400

Ala Phe Tyr Asn Asp Gly Lys Asn Ala Glu Gln Val Ser Phe Asn Thr
405 410 415

Ile Val Ile Glu Ser Val Val Glu Cys Pro Arg Asn Cys His Gly Asn
420 425 430

Gly Glu Cys Val Ser Gly Thr Cys His Cys Phe Pro Gly Phe Leu Gly
435 440 445

Pro Asp Cys Ser Arg Ala Ala Cys Pro Val Leu Cys Ser Gly Asn Gly
450 455 460

Gln Tyr Ser Lys Gly Arg Cys Leu Cys Phe Ser Gly Trp Lys Gly Thr
465 470 475 480

Glu Cys Asp Val Pro Thr Thr Gln Cys Ile Asp Pro Gln Cys Gly Gly
485 490 495

Arg Gly Ile Cys Ile Met Gly Ser Cys Ala Cys Asn Ser Gly Tyr Lys
500 505 510

Gly Glu Ser Cys Glu Glu Ala Asp Cys Ile Asp Pro Gly Cys Ser Asn
515 520 525

His Gly Val Cys Ile His Gly Glu Cys His Cys Ser Pro Gly Trp Gly
 530 535 540
 Gly Ser Asn Cys Glu Ile Leu Lys Thr Met Cys Pro Asp Gln Cys Ser
 545 550 555 560
 Gly His Gly Thr Tyr Leu Gln Glu Ser Gly Ser Cys Thr Cys Asp Pro
 565 570 575
 Asn Trp Thr Gly Pro Asp Cys Ser Asn Glu Ile Cys Ser Val Asp Cys
 580 585 590
 Gly Ser His Gly Val Cys Met Gly Gly Thr Cys Arg Cys Glu Glu Gly
 595 600 605
 Trp Thr Gly Pro Thr Cys Asn Gln Arg Ala Cys His Pro Arg Cys Ala
 610 615 620
 Glu His Gly Thr Cys Lys Asp Gly Lys Cys Glu Cys Ser His Gly Trp
 625 630 635 640
 Asn Gly Glu His Cys Thr Ile Glu Gly Cys Pro Gly Leu Cys Asn Ser
 645 650 655
 Asn Gly Arg Cys Thr Leu Asp Gln Asn Gly Trp His Cys Val Cys Gln
 660 665 670
 Pro Gly Trp Arg Gly Ala Gly Cys Asp Val Ala Met Glu Thr Leu Cys
 675 680 685
 Thr Asp Ser Lys Asp Asn Glu Gly Asp Gly Leu Ile Asp Cys Met Asp
 690 695 700
 Pro Asp Cys Cys Leu Gln Ser Ser Cys Gln Asn Gln Pro Tyr Cys Arg
 705 710 715 720
 Gly Leu Pro Asp Pro Gln Asp Ile Ile Ser Gln Ser Leu Gln Ser Pro
 725 730 735
 Ser Gln Gln Ala Ala Lys Ser Phe Tyr Asp Arg Ile Ser Phe Leu Ile
 740 745 750
 Gly Ser Asp Ser Thr His Val Ile Pro Gly Glu Ser Pro Phe Asn Lys
 755 760 765
 Ser Leu Ala Ser Val Ile Arg Gly Gln Val Leu Thr Ala Asp Gly Thr
 770 775 780
 Pro Leu Ile Gly Val Asn Val Ser Phe Phe His Tyr Pro Glu Tyr Gly
 785 790 795 800
 Tyr Thr Ile Thr Arg Gln Asp Gly Met Phe Asp Leu Val Ala Asn Gly
 805 810 815
 Gly Ala Ser Leu Thr Leu Val Phe Glu Arg Ser Pro Phe Leu Thr Gln
 820 825 830

Tyr His Thr Val Trp Ile Pro Trp Asn Val Phe Tyr Val Met Asp Thr
 835 840 845
 Leu Val Met Glu Lys Glu Glu Asn Asp Ile Pro Ser Cys Asp Leu Ser
 850 855 860
 Gly Phe Val Arg Pro Asn Pro Ile Ile Val Ser Ser Pro Leu Ser Thr
 865 870 875 880
 Phe Phe Arg Ser Ser Pro Glu Asp Ser Pro Ile Ile Pro Glu Thr Gln
 885 890 895
 Val Leu His Glu Glu Thr Thr Ile Pro Gly Thr Asp Leu Lys Leu Ser
 900 905 910
 Tyr Leu Ser Ser Arg Ala Ala Gly Tyr Lys Ser Val Leu Lys Ile Thr
 915 920 925
 Met Thr Gln Ser Ile Ile Pro Phe Asn Leu Met Lys Val His Leu Met
 930 935 940
 Val Ala Val Val Gly Arg Leu Phe Gln Lys Trp Phe Pro Ala Ser Pro
 945 950 955 960
 Asn Leu Ala Tyr Thr Phe Ile Trp Asp Lys Thr Asp Ala Tyr Asn Gln
 965 970 975
 Lys Val Tyr Gly Leu Ser Glu Ala Val Val Ser Val Gly Tyr Glu Tyr
 980 985 990
 Glu Ser Cys Leu Asp Leu Thr Leu Trp Glu Lys Arg Thr Ala Ile Leu
 995 1000 1005
 Gln Gly Tyr Glu Leu Asp Ala Ser Asn Met Gly Gly Trp Thr Leu Asp
 1010 1015 1020
 Lys His His Val Leu Asp Val Gln Asn Gly Ile Leu Tyr Lys Gly Asn
 1025 1030 1035 1040
 Gly Glu Asn Gln Phe Ile Ser Gln Gln Pro Pro Val Val Ser Ser Ile
 1045 1050 1055
 Met Gly Asn Gly Arg Arg Arg Ser Ile Ser Cys Pro Ser Cys Asn Gly
 1060 1065 1070
 Gln Ala Asp Gly Asn Lys Leu Leu Ala Pro Val Ala Leu Ala Cys Gly
 1075 1080 1085
 Ile Asp Gly Ser Leu Tyr Val Gly Asp Phe Asn Tyr Val Arg Arg Ile
 1090 1095 1100
 Phe Pro Ser Gly Asn Val Thr Ser Val Leu Glu Leu Arg Asn Lys Asp
 1105 1110 1115 1120
 Phe Arg His Ser Ser Asn Pro Ala His Arg Tyr Tyr Leu Ala Thr Asp
 1125 1130 1135

Pro Val Thr Gly Asp Leu Tyr Val Ser Asp Thr Asn Thr Arg Arg Ile
1140 1145 1150

Tyr Arg Pro Lys Ser Leu Thr Gly Ala Lys Asp Leu Thr Lys Asn Ala
1155 1160 1165

Glu Val Val Ala Gly Thr Gly Glu Gln Cys Leu Pro Phe Asp Glu Ala
1170 1175 1180

Arg Cys Gly Asp Gly Gly Lys Ala Val Glu Ala Thr Leu Met Ser Pro
1185 1190 1195 1200

Lys Gly Met Ala Val Asp Lys Asn Gly Leu Ile Tyr Phe Val Asp Gly
1205 1210 1215

Thr Met Ile Arg Lys Val Asp Gln Asn Gly Ile Ile Ser Thr Leu Leu
1220 1225 1230

Gly Ser Asn Asp Leu Thr Ser Ala Arg Pro Leu Thr Cys Asp Thr Ser
1235 1240 1245

Met His Ile Ser Gln Val Arg Leu Glu Trp Pro Thr Asp Leu Ala Ile
1250 1255 1260

Asn Pro Met Asp Asn Ser Ile Tyr Val Leu Asp Asn Asn Val Val Leu
1265 1270 1275 1280

Gln Ile Thr Glu Asn Arg Gln Val Arg Ile Ala Ala Gly Arg Pro Met
1285 1290 1295

His Cys Gln Val Pro Gly Val Glu Tyr Pro Val Gly Lys His Ala Val
1300 1305 1310

Gln Thr Thr Leu Glu Ser Ala Thr Ala Ile Ala Val Ser Tyr Ser Gly
1315 1320 1325

Val Leu Tyr Ile Thr Glu Thr Asp Glu Lys Lys Ile Asn Arg Ile Arg
1330 1335 1340

Gln Val Thr Thr Asp Gly Glu Ile Ser Leu Val Ala Gly Ile Pro Ser
1345 1350 1355 1360

Glu Cys Asp Cys Lys Asn Asp Ala Asn Cys Asp Cys Tyr Gln Ser Gly
1365 1370 1375

Asp Gly Tyr Ala Lys Asp Ala Lys Leu Ser Ala Pro Ser Ser Leu Ala
1380 1385 1390

Ala Ser Pro Asp Gly Thr Leu Tyr Ile Ala Asp Leu Gly Asn Ile Arg
1395 1400 1405

Ile Arg Ala Val Ser Lys Asn Lys Pro Leu Leu Asn Ser Met Asn Phe
1410 1415 1420

Tyr Glu Val Ala Ser Pro Thr Asp Gln Glu Leu Tyr Ile Phe Asp Ile
1425 1430 1435 1440

Asn Gly Thr His Gln Tyr Thr Val Ser Leu Val Thr Gly Asp Tyr Leu
1445 1450 1455

Tyr Asn Phe Ser Tyr Ser Asn Asp Asn Asp Ile Thr Ala Val Thr Asp
1460 1465 1470

Ser Asn Gly Asn Thr Leu Arg Ile Arg Arg Asp Pro Asn Arg Met Pro
1475 1480 1485

Val Arg Val Val Ser Pro Asp Asn Gln Val Ile Trp Leu Thr Ile Gly
1490 1495 1500

Thr Asn Gly Cys Leu Lys Gly Met Thr Ala Gln Gly Leu Glu Leu Val
1505 1510 1515 1520

Leu Phe Thr Tyr His Gly Asn Ser Gly Leu Leu Ala Thr Lys Ser Asp
1525 1530 1535

Glu Thr Gly Trp Thr Thr Phe Phe Asp Tyr Asp Ser Glu Gly Arg Leu
1540 1545 1550

Thr Asn Val Thr Phe Pro Thr Gly Val Val Thr Asn Leu His Gly Asp
1555 1560 1565

Met Asp Lys Ala Ile Thr Val Asp Ile Glu Ser Ser Ser Arg Glu Glu
1570 1575 1580

Asp Val Ser Ile Thr Ser Asn Leu Ser Ser Ile Asp Ser Phe Tyr Thr
1585 1590 1595 1600

Met Val Gln Asp Gln Leu Arg Asn Ser Tyr Gln Ile Gly Tyr Asp Gly
1605 1610 1615

Ser Leu Arg Ile Ile Tyr Ala Ser Gly Leu Asp Ser His Tyr Gln Thr
1620 1625 1630

Glu Pro His Val Leu Ala Gly Thr Ala Asn Pro Thr Val Ala Lys Arg
1635 1640 1645

Asn Met Thr Leu Pro Gly Glu Asn Gly Gln Asn Leu Val Glu Trp Arg
1650 1655 1660

Phe Arg Lys Glu Gln Ala Gln Gly Lys Val Asn Val Phe Gly Arg Lys
1665 1670 1675 1680

Leu Arg Val Asn Gly Arg Asn Leu Leu Ser Val Asp Phe Asp Arg Thr
1685 1690 1695

Thr Lys Thr Glu Lys Ile Tyr Asp Asp His Arg Lys Phe Leu Leu Arg
1700 1705 1710

Ile Ala Tyr Asp Thr Ser Gly His Pro Thr Leu Trp Leu Pro Ser Ser
1715 1720 1725

Lys Leu Met Ala Val Asn Val Thr Tyr Ser Ser Thr Gly Gln Ile Ala
1730 1735 1740

Ser Ile Gln Arg Gly Thr Thr Ser Glu Lys Val Asp Tyr Asp Gly Gln
1745 1750 1755 1760

Gly Arg Ile Val Ser Arg Val Phe Ala Asp Gly Lys Thr Trp Ser Tyr
1765 1770 1775

Thr Tyr Leu Glu Lys Ser Met Val Leu Leu Leu His Ser Gln Arg Gln
1780 1785 1790

Tyr Ile Phe Glu Tyr Asp Met Trp Asp Arg Leu Ser Ala Ile Thr Met
1795 1800 1805

Pro Ser Val Ala Arg His Thr Met Gln Thr Ile Arg Ser Ile Gly Tyr
1810 1815 1820

Tyr Arg Asn Ile Tyr Asn Pro Pro Glu Ser Asn Ala Ser Ile Ile Thr
1825 1830 1835 1840

Asp Tyr Asn Glu Glu Gly Leu Leu Leu Gln Thr Ala Phe Leu Gly Thr
1845 1850 1855

Ser Arg Arg Val Leu Phe Lys Tyr Arg Arg Gln Thr Arg Leu Ser Glu
1860 1865 1870

Ile Leu Tyr Asp Ser Thr Arg Val Ser Phe Thr Tyr Asp Glu Thr Ala
1875 1880 1885

Gly Val Leu Lys Thr Val Asn Leu Gln Ser Asp Gly Phe Ile Cys Thr
1890 1895 1900

Ile Arg Tyr Arg Gln Ile Gly Pro Leu Ile Asp Arg Gln Ile Phe Arg
1905 1910 1915 1920

Phe Ser Glu Asp Gly Met Val Asn Ala Arg Phe Asp Tyr Ser Tyr Asp
1925 1930 1935

Asn Ser Phe Arg Val Thr Ser Met Gln Gly Val Ile Asn Glu Thr Pro
1940 1945 1950

Leu Pro Ile Asp Leu Tyr Gln Phe Asp Asp Ile Ser Gly Lys Val Glu
1955 1960 1965

Gln Phe Gly Lys Phe Gly Val Ile Tyr Tyr Asp Ile Asn Gln Ile Ile
1970 1975 1980

Ser Thr Ala Val Met Thr Tyr Thr Lys His Phe Asp Ala His Gly Arg
1985 1990 1995 2000

Ile Lys Glu Ile Gln Tyr Glu Ile Phe Arg Ser Leu Met Tyr Trp Ile
2005 2010 2015

Thr Ile Gln Tyr Asp Asn Met Gly Arg Val Thr Lys Arg Glu Ile Lys
2020 2025 2030

Ile Gly Pro Phe Ala Asn Thr Thr Lys Tyr Ala Tyr Glu Tyr Asp Val
2035 2040 2045

98

<400>	43						
ggcggggcg	cggggcggcc	ggcggcggcc	atgggagata	tcccagccgt	gggcctcagc	60	
tcctggaagc	aggtctctcc	agggaaagt	accgaggcag	tgaaagaggc	cattgacgca	120	
gggtaccggc	acttcgactc	tgcttacttt	taccacaatg	agagggagggt	tggaagcagg	180	
atccgttgca	agatcaagga	aggcgctgta	agacgggagg	atctgttcat	tgccactaag	240	
ctgtggtgca	cctgccataa	gaagtccttg	gtggaaacag	catgcagaaa	gagtctcaag	300	
gccttgaagc	tgaactatct	ggacctctac	ctcatacact	ggcccattgg	tttcaaagcct	360	
cgagtgcagg	acttgccctc	ggacgagagc	aacatgggta	ttccagtgta	cacggacttc	420	
ctaacacac	qaaagcccat	qaaagacctg	qtqatcaccg	gqcttqatgaa	aaacatccgg	480	
gtgtcaaatc	tcaaccatga	acagctctga	aggcttttga	ataagcctgg	gttgaggttc	540	
aagccactaa	ccaaccagat	tgaagtgcac	ccatatctta	ctcagaagaa	tctgatcagt	600	
ttttgccaat	ccagagatgt	gtccgtgact	gcttaccgtc	ctcttggtgg	ctctagttag	660	
ggggttgacc	tgatagacaa	cctgtgtatc	aagaggattg	caaaggagca	cggcaagtct	720	
cctgctcaga	ttttgatccg	atttcaaate	cagagggaatg	tgatagtgat	ccccgatctc	780	
atcaccccaa	gtcacattaa	agagaatatc	caggtgtttg	attttgaatt	aacacagcac	840	
gatatggata	acatcctcag	ctctaaacagg	aatctccgac	tggccattgt	ccccagaact	900	
aaaaatcaca	aagactatcc	tttccacata	gaatactgag	gacgtctccc	cttctcct	956	

```
<210> 44
<211> 302
<212> PRT
<213> Homo sapiens
```

<400>	44																
Met	Gly	Asp	Ile	Pro	Ala	Val	Gly	Leu	Ser	Ser	Trp	Lys	Gln	Ala	Ser		
1				5					10					15			
Pro	Gly	Lys	Val	Thr	Glu	Ala	Val	Lys	Glu	Ala	Ile	Asp	Ala	Gly	Tyr		
			20					25					30				
Arg	His	Phe	Asp	Cys	Ala	Tyr	Phe	Tyr	His	Asn	Glu	Arg	Glu	Val	Gly		
		35					40					45					
Ala	Gly	Ile	Arg	Cys	Lys	Ile	Lys	Glu	Gly	Ala	Val	Arg	Arg	Glu	Asp		
	50					55					60						
Leu	Phe	Ile	Ala	Thr	Lys	Leu	Trp	Cys	Thr	Cys	His	Lys	Lys	Ser	Leu		
65					70					75					80		
Val	Glu	Thr	Ala	Cys	Arg	Lys	Ser	Leu	Lys	Ala	Leu	Lys	Leu	Asn	Tyr		
				85					90					95			
Leu	Asp	Leu	Tyr	Leu	Ile	His	Trp	Pro	Met	Gly	Phe	Lys	Pro	Arg	Val		
			100					105					110				
Gln	Asp	Leu	Pro	Leu	Asp	Glu	Ser	Asn	Met	Val	Ile	Pro	Ser	Asp	Thr		
		115					120					125					
Asp	Phe	Leu	Asp	Thr	Trp	Glu	Ala	Met	Glu	Asp	Leu	Val	Ile	Thr	Gly		
	130					135					140						
Leu	Val	Lys	Asn	Ile	Gly	Val	Ser	Asn	Phe	Asn	His	Glu	Gln	Leu	Glu		
145					150					155					160		
Arg	Leu	Leu	Asn	Lys	Pro	Gly	Leu	Arg	Phe	Lys	Pro	Leu	Thr	Asn	Gln		

SECRET

				165					170						175		
Ile	Glu	Cys	His	Pro	Tyr	Leu	Thr	Gln	Lys	Asn	Leu	Ile	Ser	Phe	Cys		
			180					185					190				
Gln	Ser	Arg	Asp	Val	Ser	Val	Thr	Ala	Tyr	Arg	Pro	Leu	Gly	Gly	Ser		
		195					200					205					
Ser	Glu	Gly	Val	Asp	Leu	Ile	Asp	Asn	Pro	Val	Ile	Lys	Arg	Ile	Ala		
	210					215					220						
Lys	Glu	His	Gly	Lys	Ser	Pro	Ala	Gln	Ile	Leu	Ile	Arg	Phe	Gln	Ile		
225					230					235					240		
Gln	Arg	Asn	Val	Ile	Val	Ile	Pro	Gly	Ser	Ile	Thr	Pro	Ser	His	Ile		
			245						250					255			
Lys	Glu	Asn	Ile	Gln	Val	Phe	Asp	Phe	Glu	Leu	Thr	Gln	His	Asp	Met		
		260						265					270				
Asp	Asn	Ile	Leu	Ser	Leu	Asn	Arg	Asn	Leu	Arg	Leu	Ala	Met	Phe	Pro		
		275					280					285					
Arg	Thr	Lys	Asn	His	Lys	Asp	Tyr	Pro	Phe	His	Ile	Glu	Tyr				
	290					295					300						

```
<210> 45
<211> 875
<212> DNA
<213> Homo sapiens
```

<400>	45					
ggcgggggcg	ccggcgggcg	ccatgggaga	tatcccgcc	gtgggcctca	gctcctggaa	60
gcaggcttct	ccaggaaaag	tgaccgaggc	agtgaaagag	gccattgacg	caggggtaccg	120
gcaacttcgac	tgtgcttact	tttaccacaa	tgagagggag	gttgggacag	ggatccggttg	180
caagatcaag	gaaggcgctg	taagacggga	ggatctgttc	atgtgccata	agctgtggtg	240
cacctggccat	aagaagtctt	tgggtgaaac	agcatgcaga	aagggtctca	aggccttgaa	300
gctgaactat	ttggacctct	acctatatac	cttggccatg	ggtttcaagc	ctcctcatcc	360
agaatggatc	atgagctgca	gtgaactttc	cttctgcctc	tcacatcctc	gagtgcagga	420
cttgctcttg	gacgagagca	acatggttat	tcccagtgac	acggacttcc	tggacacgtg	480
ggaggccatg	gaggacctgg	tgatcacccg	gctgtggaag	aacatcgggg	tgtcaaactt	540
caaccatgaa	cagcttgaga	ggcttttgaa	taagcctggg	ttgaggttca	agccactaac	600
caaccagatt	ttgatecgat	ttcaaatacca	gaggaaatgtg	atagtgatcc	ccggatctat	660
caccccaagt	cacattaaag	agaatatcca	ggtgtttgat	tttgaaattaa	cacagcacga	720
tatggataac	atccttcagcc	taaacaggaa	tctccagactg	gccatgttcc	ccatgtaaat	780
atggctcctt	cttttttaaaa	cagagggaag	aatatacaga	ttgaatgatt	ggtgtctgaa	840
tgaactaaaa	aatcacaaaag	actatccttt	ccaca			875

```
<210> 46
<211> 251
<212> PRT
<213> Homo sapiens
```

<400> 46
Met Gly Asp Ile Pro Ala Val Gly Leu Ser Ser Trp Lys Gln Ala Ser

1	5	10	15
Pro Gly Lys Val Thr Glu Ala Val Lys Glu Ala Ile Asp Ala Gly Tyr	20	25	30
Arg His Phe Asp Cys Ala Tyr Phe Tyr His Asn Glu Arg Glu Val Gly	35	40	45
Ala Gly Ile Arg Cys Lys Ile Lys Glu Gly Ala Val Arg Arg Glu Asp	50	55	60
Leu Phe Ile Ala Thr Lys Leu Trp Cys Thr Cys His Lys Lys Ser Leu	65	70	75
Val Glu Thr Ala Cys Arg Lys Gly Leu Lys Ala Leu Lys Leu Asn Tyr	85	90	95
Leu Asp Leu Tyr Leu Ile His Trp Pro Met Gly Phe Lys Pro Pro His	100	105	110
Pro Glu Trp Ile Met Ser Cys Ser Glu Leu Ser Phe Cys Leu Ser His	115	120	125
Pro Arg Val Gln Asp Leu Pro Leu Asp Glu Ser Asn Met Val Ile Pro	130	135	140
Ser Asp Thr Asp Phe Leu Asp Thr Trp Glu Ala Met Glu Asp Leu Val	145	150	155
Ile Thr Gly Leu Val Lys Asn Ile Gly Val Ser Asn Phe Asn His Glu	165	170	175
Gln Leu Glu Arg Leu Leu Asn Lys Pro Gly Leu Arg Phe Lys Pro Leu	180	185	190
Thr Asn Gln Ile Leu Ile Arg Phe Gln Ile Gln Arg Asn Val Ile Val	195	200	205
Ile Pro Gly Ser Ile Thr Pro Ser His Ile Lys Glu Asn Ile Gln Val	210	215	220
Phe Asp Phe Glu Leu Thr Gln His Asp Met Asp Asn Ile Leu Ser Leu	225	230	235
Asn Arg Asn Leu Arg Leu Ala Met Phe Pro Met	245	250	

```
<400> 47
ggcggggcgg ccggcggcgg ccatgggaga tatcccagcc gtgggcctca gtccttgga 60
gcaggettct ccaggtaaag tgaccgaggc agtgaaagag gccattgacg cagggtagcg 120
gcacttcgac tgtgcttact tttaccacaa tgagaggag gttggagcag ggatccgttg 180
```

caagatcaag gaaggcgctg taagacggga ggatctgttc attgccacta agctgtgggtg 240
 cacctgccat aagaagtcct tgggtggaac agcatgcaga aagagtctca aggccttgaa 300
 gctgaactat ttggacctct acctcataca ctggcccatg ggtttcaagc ctccatcatcc 360
 agaatggatc atgagctgca gtgaactttc cttctgcctc tcacatcctc gagtgcagga 420
 cttgcctctg gacgagagca acatgggttat tcccagtgac acggacttcc tggacacgtg 480
 ggagattttg atccgatttc aaatccagag gaatgtgata gtgatccccg gatctatcac 540
 cccaagtcac attaaagaga atatccaggt gtttgatttt gaattaacac agcagatat 600
 qqataacatc ctcaqcctaa acaqaatct ccqactggc atgttccccca tqtaaatatq 660
 gctccttctt tttaaaacag agggaagaat atacagattg aatgattggt gtctgaatag 720
 aactaaaaat cacaaaact atcctttcca ca 752

<210> 48
 <211> 210
 <212> PRT
 <213> Homo sapiens

<400> 48
 Met Gly Asp Ile Pro Ala Val Gly Leu Ser Ser Trp Lys Gln Ala Ser
 1 5 10 15
 Pro Gly Lys Val Thr Glu Ala Val Lys Glu Ala Ile Asp Ala Gly Tyr
 20 25 30
 Arg His Phe Asp Cys Ala Tyr Phe Tyr His Asn Glu Arg Glu Val Gly
 35 40 45
 Ala Gly Ile Arg Cys Lys Ile Lys Glu Gly Ala Val Arg Arg Glu Asp
 50 55 60
 Leu Phe Ile Ala Thr Lys Leu Trp Cys Thr Cys His Lys Lys Ser Leu
 65 70 75 80
 Val Glu Thr Ala Cys Arg Lys Ser Leu Lys Ala Leu Lys Leu Asn Tyr
 85 90 95
 Leu Asp Leu Tyr Leu Ile His Trp Pro Met Gly Phe Lys Pro Pro His
 100 105 110
 Pro Glu Trp Ile Met Ser Cys Ser Glu Leu Ser Phe Cys Leu Ser His
 115 120 125
 Pro Arg Val Gln Asp Leu Pro Leu Asp Glu Ser Asn Met Val Ile Pro
 130 135 140
 Ser Asp Thr Asp Phe Leu Asp Thr Trp Glu Ile Leu Ile Arg Phe Gln
 145 150 155 160
 Ile Gln Arg Asn Val Ile Val Ile Pro Gly Ser Ile Thr Pro Ser His
 165 170 175
 Ile Lys Glu Asn Ile Gln Val Phe Asp Phe Glu Leu Thr Gln His Asp
 180 185 190
 Met Asp Asn Ile Leu Ser Leu Asn Lys Asn Leu Arg Leu Ala Met Phe
 195 200 205

Pro Met
210

<210> 49
<211> 785
<212> DNA
<213> Homo sapiens

<400> 49
ggcggggcgg cggggcggcc ggcggcggcc atgggagata tcccagccgt gggcctcagc 60
tcctggaagc aggttctcc agggaaagt accgaggcag tgaaagaggc cattgacgca 120
gggtaccggc acttcgactg tgcttacttt taccacaatg agagggaggt tggagcaggg 180
atccgttgca agatcaagga aggcgctgta agacgggagg atctgttcat tgccactaag 240
ctgtggtgca cctgccataa gaagtccttg gtggaaacag catgcagaaa gagtctcaag 300
gccttgaagc tgaactatct ggacctctac ctcatacact ggcccatggg tttcaagcct 360
cgagtgcagg acttgccctc ggacgagagc aacatgggta tcccagtgga caccgacttc 420
ctggacacgt gggaggccat ggaggacctg gtgatcaccc ggctgggtgaa gaacatcggg 480
gtgtcaaaact tcaaccatga acagcttgag aggtttttga ataagcctgg gttgagggttc 540
aagccactaa ccaaccagat tttgatccga tttcaaatec agaggaatgt gatagtgate 600
cccggatcta tcacccaag tcacattaaa gagaatatec aggtgtttga ttttgaatta 660
acacagcacg atatggataa catectcagc ctaaacagga atctccgact ggccatgttc 720
cccagaacta aaaatcacaa agactatcct ttccacatag aatactgagg acgttccccc 780
ttcct 785

<210> 50
<211> 245
<212> PRT
<213> Homo sapiens

<400> 50
Met Gly Asp Ile Pro Ala Val Gly Leu Ser Ser Trp Lys Gln Ala Ser
1 5 10 15
Pro Gly Lys Val Thr Glu Ala Val Lys Glu Ala Ile Asp Ala Gly Tyr
20 25 30
Arg His Phe Asp Cys Ala Tyr Phe Tyr His Asn Glu Arg Glu Val Gly
35 40 45
Ala Gly Ile Arg Cys Lys Ile Lys Glu Gly Ala Val Arg Arg Glu Asp
50 55 60
Leu Phe Ile Ala Thr Lys Leu Trp Cys Thr Cys His Lys Lys Ser Leu
65 70 75 80
Val Glu Thr Ala Cys Arg Lys Ser Leu Lys Ala Leu Lys Leu Asn Tyr
85 90 95
Leu Asp Leu Tyr Leu Ile His Trp Pro Met Gly Phe Lys Pro Arg Val
100 105 110
Gln Asp Leu Pro Leu Asp Glu Ser Asn Met Val Ile Pro Ser Asp Thr
115 120 125
Asp Phe Leu Asp Thr Trp Glu Ala Met Glu Asp Leu Val Ile Thr Gly

130 135 140
 Leu Val Lys Asn Ile Gly Val Ser Asn Phe Asn His Glu Gln Leu Glu
 145 150 155 160
 Arg Leu Leu Asn Lys Pro Gly Leu Arg Phe Lys Pro Leu Thr Asn Gln
 165 170 175
 Ile Leu Ile Arg Phe Gln Ile Gln Arg Asn Val Ile Val Ile Pro Gly
 180 185 190
 Ser Ile Thr Pro Ser His Ile Lys Glu Asn Ile Gln Val Phe Asp Phe
 195 200 205
 Glu Leu Thr Gln His Asp Met Asp Asn Ile Leu Ser Leu Asn Arg Asn
 210 215 220
 Leu Arg Leu Ala Met Phe Pro Arg Thr Lys Asn His Lys Asp Tyr Pro
 225 230 235 240
 Phe His Ile Glu Tyr
 245

<210> 51
 <211> 937
 <212> DNA
 <213> Homo sapiens

<400> 51
 ggcgggcgcg cgggcgcgcc ggcgggcgcc atgggagata tcccagccgt gggcctcagc 60
 tcctggaagc aggccttctcc agggaaagt accgaggcag tgaaagaggc cattgacgca 120
 gggtagcggc acttcgactg tgcttacttt taccacaatg agagggagggt tggagcaggg 180
 atccgttgca agatcaagga aggcgctgta agacgggagg atctgttcat tgccactaag 240
 cctcctcacc cagaatggat catgagctgc agtgaacttt ccttctgcct ctcacatcct 300
 cgagtgcagg acttgectct ggacgagagc aacatgggta tcccagtgta cacggacttc 360
 ctggacacgt gggaggccat ggaggacctg gtgatcaccc ggctggtgaa gaacatcggg 420
 gtgtcaaact tcaaccatga acagcttgag aggccttttga ataagcctgg gttgaggttc 480
 aagccactaa ccaaccagat tgagtyccac ccatacttta ctcagaagaa tctgatcagt 540
 ttttgccaat ccagagatgt gtccgtgact gcttaccgtc ctcttggtgg ctctgttgag 600
 ggggttgacc tgatagacaa ccctgtgatc aagaggattg caaaggagca cggcaagtct 660
 cctgctcaga ttttgatccg atttcaaatc cagaggaatg tgatagtgtat ccccggtatc 720
 atcaccccaa gtcacattaa agagaatatc cagggtgtttg attttgaatt aacacagcac 780
 gatattggata acatcctcag cctaaacagg aatctccgac tggccatgtt ccccatgtaa 840
 atatggctcc ttctttttta aacagagggg agaatatata gattgaatga ttggtgtctg 900
 aatagaacta aaaatcacia agactatcct ttccaca 937

<210> 52
 <211> 269
 <212> PRT
 <213> Homo sapiens

<400> 52
 Met Gly Asp Ile Pro Ala Val Gly Leu Ser Ser Trp Lys Gln Ala Ser
 1 5 10 15

Pro Gly Lys Val Thr Glu Ala Val Lys Glu Ala Ile Asp Ala Gly Tyr
20 25 30

Arg His Phe Asp Cys Ala Tyr Phe Tyr His Asn Glu Arg Glu Val Gly
35 40 45

Ala Gly Ile Arg Cys Lys Ile Lys Glu Gly Ala Val Arg Arg Glu Asp
50 55 60

Leu Phe Ile Ala Thr Lys Pro Pro His Pro Glu Trp Ile Met Ser Cys
65 70 75 80

Ser Glu Leu Ser Phe Cys Leu Ser His Pro Arg Val Gln Asp Leu Pro
85 90 95

Leu Asp Glu Ser Asn Met Val Ile Pro Ser Asp Thr Asp Phe Leu Asp
100 105 110

Thr Trp Glu Ala Met Glu Asp Leu Val Ile Thr Gly Leu Val Lys Asn
115 120 125

Ile Gly Val Ser Asn Phe Asn His Glu Gln Leu Glu Arg Leu Leu Asn
130 135 140

Lys Pro Gly Leu Arg Phe Lys Pro Leu Thr Asn Gln Ile Glu Cys His
145 150 155 160

Pro Tyr Leu Thr Gln Lys Asn Leu Ile Ser Phe Cys Gln Ser Arg Asp
165 170 175

Val Ser Val Thr Ala Tyr Arg Pro Leu Gly Gly Ser Cys Glu Gly Val
180 185 190

Asp Leu Ile Asp Asn Pro Val Ile Lys Arg Ile Ala Lys Glu His Gly
195 200 205

Lys Ser Pro Ala Gln Ile Leu Ile Arg Phe Gln Ile Gln Arg Asn Val
210 215 220

Ile Val Ile Pro Gly Ser Ile Thr Pro Ser His Ile Lys Glu Asn Ile
225 230 235 240

Gln Val Phe Asp Phe Glu Leu Thr Gln His Asp Met Asp Asn Ile Leu
245 250 255

Ser Leu Asn Arg Asn Leu Arg Leu Ala Met Phe Pro Met
260 265

<210> 53

<211> 884

<212> DNA

<213> Homo sapiens

<400> 53

gaattcaaaa aaaaaagaaa aaaaaaaaaa aaaaaaaagag agactgagag 60
aaggaggtcc cccacggccc ttcaggatga aagctgcggg gctgaccttg gccgtgctct 120

tctctgacggg	gagccaggct	cggcattttct	ggcagcaaga	tgaaccccc	cagagccct	180
gggatctgagt	gaaggacctg	gccactgtgt	acgttgatgt	gctcaaagac	agcgtgacct	240
ccacctctcag	caagctgctg	gaacactgtg	gcctctgtac	ccaggagttc	tgggataacc	300
ttgaaaaagga	gcagagaggc	ctgaggcagg	agatgagcaa	ggatctggag	gaggtgaagg	360
ccaagggtgca	gccctacctg	gacgacttcc	agaagaagtg	gcaggaggag	atggagctct	420
accgccagaa	ggtggagccg	ctgcgcgcag	agctccaaga	gggcgcgcgc	cagaagctgc	480
acgagctgca	agagaagctg	agcccactgg	gcgaggagat	gcgcgaccgc	gcgcgcgcc	540
atgttgacgc	gtctgcacac	cattctgccc	cctacaqcqa	cgaqctgcgc	caqcctcttg	600
ccgcgcgcct	tgaggtcttc	caggagaacg	gcgcgcgcag	actgctcgag	taccacgcc	660
aqqccaccqa	gcctctgaac	acqctcaqcg	aqaaqccaa	qcccqcqctc	qaqqacctcc	720
gccaaggctt	gctgcctctg	ctggagagct	tcaaggctac	cttctctgag	gctctcyagg	780
agtaactacta	gaagctcaac	accagtgag	gcgcccgcgc	ccgcceccct	tcccggtgct	840
caqaataaac	gtttccaaaq	tccqaaaaaa	aaaaaaaaga	attc		880

```
<210> 54
<211> 240
<212> PRT
<213> Homo sapiens
```

<400> 54

Met Lys Ala Ala Val Leu Thr Leu Ala Val Leu Phe Leu Thr Gly Ser
1 5 10 15

Gln Ala Arg His Phe Trp Gln Gln Asp Glu Pro Pro Gln Ser Pro Trp
20 25 30

Asp Arg Val Lys Asp Leu Ala Thr Val Tyr Val Asp Val Leu Lys Asp
35 40 45

Ser Val Thr Ser Thr Phe Ser Lys Leu Arg Glu Gln Leu Gly Pro Val
50 55 60

Thr Gln Glu Phe Trp Asp Asn Leu Glu Lys Glu Thr Glu Gly Leu Arg
65 70 75 80

Gln Glu Met Ser Lys Asp Leu Glu Glu Val Lys Ala Lys Val Gln Pro
85 90 95

Tyr Leu Asp Asp Phe Gln Lys Lys Trp Gln Glu Glu Met Glu Leu Tyr
100 105 110

Arg Gln Lys Val Glu Pro Leu Arg Ala Glu Leu Gln Glu Gly Ala Arg
115 120 125

Gln Lys Leu His Glu Leu Gln Glu Lys Leu Ser Pro Leu Gly Glu Glu
130 135 140

Met Arg Asp Arg Ala Arg Ala His Val Asp Ala Leu Arg Thr His Leu
145 150 155 160

Ala Pro Tyr Ser Asp Glu Leu Arg Gln Arg Leu Ala Ala Arg Leu Glu
165 170 175

Ala Leu Lys Glu Asn Gly Gly Ala Arg Leu Ala Glu Tyr His Ala Lys
180 185 190

Ala Thr Glu His Leu Ser Thr Leu Ser Glu Lys Ala Lys Pro Ala Leu
195 200 205

Glu Asp Leu Arg Gln Gly Leu Leu Pro Val Leu Glu Ser Phe Lys Val
210 215 220

Ser Phe Leu Ser Ala Leu Glu Glu Tyr Thr Lys Lys Leu Asn Thr Gln
225 230 235 240

<210> 55
<211> 751
<212> DNA
<213> Homo sapiens

<400> 55
gaattcaaaa aaaaaagaaa aaaaaaaaaa aaaaaaaaaa aaaaaaagag agactgcgag 60
aaggaggtcc cccacggccc ttccaggatga aagctgcggt gctgaccttg gccgtgctct 120
tcctgacggg gagccaggct cggcatttct ggcagcaaga tgaaccccc cagagccct 180
gggatcgagt gaaggacctg gccactgtgt acgtggatgt gctcaaggac agcgtgacct 240
ccaccttcag caagetgctg gaacagctcg gccctgtgac ccaggagtgc tgggataacc 300
tggaaaagga gacagagggc ctgaggcagg agatgagcaa ggatctggag gaggtgaagg 360
ccaaggtgca gccctacctg gacgacttcc agaagaagtg gcaggaggag atggagctct 420
accgccagaa ggtggagccg ctgcgcgcag agctccaaga gggcgcgcg cagaagctgc 480
acgagctgcy ccagegcttg gccgagcgcc ttgaggctct caaggagaac ggcggcgcca 540
gactggccga gtaccacgcc aaggccaccg agcatctgag cacgctcagc gagaaggcca 600
agcccgcgct cgaggacctc cgccaaggcc tgctgcccgt gctggagagc ttcaagggtca 660
gcttctctgag cgctctcgag gactacacta agaagctcaa caccagtgga ggcgccccgc 720
gccgcccccc ttcccgggtgc tcagaataaa c 751

<210> 56
<211> 207
<212> PRT
<213> Homo sapiens

<400> 56
Met Lys Ala Ala Val Leu Thr Leu Ala Val Leu Phe Leu Thr Gly Ser
1 5 10 15
Gln Ala Arg His Phe Trp Gln Gln Asp Glu Pro Pro Gln Ser Pro Trp
20 25 30
Asp Arg Val Lys Asp Leu Ala Thr Val Tyr Val Asp Val Leu Lys Asp
35 40 45
Ser Val Thr Ser Thr Phe Ser Lys Leu Arg Glu Gln Leu Gly Pro Val
50 55 60
Thr Gln Glu Phe Trp Asp Asn Leu Glu Lys Glu Thr Glu Gly Leu Arg
65 70 75 80
Gln Glu Met Ser Lys Asp Leu Glu Glu Val Lys Ala Lys Val Gln Pro
85 90 95

Tyr Leu Asp Asp Phe Gln Lys Lys Trp Gln Glu Glu Met Glu Leu Tyr
100 105 110

Arg Gln Lys Val Glu Pro Leu Arg Ala Glu Leu Gln Glu Gly Ala Arg
115 120 125

Gln Lys Leu His Glu Leu Arg Gln Arg Leu Ala Glu Arg Leu Glu Ala
130 135 140

Leu Lys Glu Asn Gly Gly Ala Arg Leu Ala Glu Tyr His Ala Lys Ala
145 150 155 160

Thr Glu His Leu Ser Thr Leu Ser Glu Lys Ala Lys Pro Ala Leu Glu
165 170 175

Asp Leu Arg Gln Gly Leu Leu Pro Val Leu Glu Ser Phe Lys Val Ser
180 185 190

Phe Leu Ser Ala Leu Glu Glu Tyr Thr Lys Lys Leu Asn Thr Gln
195 200 205

<210> 57

<211> 3839

<212> DNA

<213> Homo sapiens

<400> 57

```
gtgaggccag gcctgcaggt ggggtgtcggg ctgctcaggc tttcagtggg gagtgggtgt 60
gggatgggag gctagggaac cccatttcac gcaccttctc tgcccccttc cagcttctca 120
cgttctcact atgtctgctc cagacgaagg gagacgggat ccccccaaac cgaagggcaa 180
gcccccgcc cccatgcaga ccctgggcag cttctttggg tccctgcttg gcttcagctc 240
tgcccggaac ctggtggcca acgcacatag ctccggtcggg gccaaagacc tgggtgtgttc 300
caagatgtcc agggccaagg atgccgtgtc ctccgggggtg gccagcgtgg tggacgtggc 360
taagggagtg gtccagggag gcctggacac cactcgggtc gcacttacgg gcaccaagga 420
ggtggtgtcc agcgggggtca caggggccat ggacatggct aagggggccg tccaaggggg 480
tctggacacc tcgaaggctg tcttcaccgg caccaaggac acggtgtcca ctgggctcac 540
gggggcagtg aatgtgcca aagggaccgt acaggccggt gtggacacca ccaagactgt 600
gctgaccggc accaaagaca cagtgactac tggggtcagt ggggcagtga acttggccaa 660
agggactgtc cagactggcg tggaaacctc caaggctgtg ctgaccggca ccaaagatgc 720
tgtgtccact gggctcacag gggcagtga tgtggccaga ggaagcattc agaccggtgt 780
ggacaccagt aagactgtcc taacaggtac caaggacacc gtctgtagtg gggtgactgg 840
tgccatgaat gtggccaaag gaaccatcca gaccggcgtg gacaccagta agactgtcct 900
aacagggtacc aaggacaccg tctgtagtgg ggtgactggg gccatgaatg tggccaaagg 960
aaccatccag accggcgtgg acaccagtaa gactgtccta acaggtagca aggacaccgt 1020
ctgtagtggg gtgactggtg ccatgaatgt ggccaaagga accatccaga ccggcgtgga 1080
caccaccaag actgtcctaa ctggcaccaa gaacactgtc tgcagtgggg tgaccgggtgc 1140
cgtgaacttg gccaaagagg ccatccaggg gggcctggat accaccaagt ctatgggtcat 1200
gggtacgaaa gacacgatgt ccaactgggt cacaggggca gcgaatgtgg ccaagggggc 1260
catgcaaaact gggctgaaca caacccaaaa tatcgcaaca ggtacaaagg acaccgtctg 1320
cagtgggggtg actggtgcc tgaatttggc cagaggaacc atccagacag gcgtggacac 1380
caccaagatc gttctaactg gtaccaagga cactgtctgc agtggggtca ccggtgctgc 1440
gaatgtggcc aaaggggccc tccaggggcg cctggacact acaaagtctg tctgtactgg 1500
cactaaagat gctgtgtcca ctgggctcac aggggctgtg aacgtggcca aagggaccgt 1560
ccagaccggc gtagacacca ccaagactgt cctaaccggc accaaggaca ccgtctgcag 1620
tggggtgacc agtgctgtga acgtggccaa aggggcccgc cagggggggc tggacaccac 1680
```

caagtctgtg gtcataagta caaaagacac gatgtccact gggctcacgg gggcagcgaa 1740
 tgtggccaag ggggctgtcc agacaggtgt agacacagcc aagaccgtgc tgaccggcac 1800
 caaggacaca gtgactactg ggctcgtggg ggcagtgaat gtcgccaaag ggaccgtcca 1860
 gacaggcatg gacaccacca aaactgtcct aaccgggtacc aaggacacca tctacagtgg 1920
 ggtcaccagt gccgtgaacg tggccaaggg ggctgtgcaa actgggctga aaacgaccca 1980
 aaatatcgcg acaggtacaa agaacacctt tggcagtggg gtgaccagtg ctgtgaatgt 2040
 ggccaaaggg gctgccraga caggtgtaga caccggccaag accgtgctga ccggcaccac 2100
 qqacacagtc actactqqqc tcatqqqqqc agtqaatqtc qccaaaqqqa ctgtccaqac 2160
 cagtgtggac accaccaaga ctgtcctaac tggtagcaag gacaccgtct gcagtggggg 2220
 qaccqatqct qcqaatqtcc ccaaaqqqc catccaaqqa qccctqaca ctacaaaqtc 2280
 tgtcctgact ggcactaaag atgctgtgtc cactgggctc acaggggctg tgaagttggc 2340
 caaaggagat gtccagaccg gcatggacac caccaagact gtgttaactg gtaccaagga 2400
 tgctgtgtgc agtgggggtga ccggtgctgc gaatgtggcc aagggggccg tccagatggg 2460
 tgtagacacg gccaaagaccg tgctgaccgg tagcaaggac actgtctgca gtgggggtcac 2520
 cgggtgctgc aacgtggcca aggggtgctgt gcaaaactggg ctgaaaacga cccaaaatat 2580
 cgcaacaggt acaaagaaca cccttggcag tgggtgagcc ggtgctgcga aagtggccaa 2640
 agggggccgtc cagggggggcc tggacactac aaagtctgtc ctgactggca ctaaaagatgc 2700
 cgtgtccact gggctcacag gggtgtgaa ctgggcaaaa gggactgtcc agaccggcgt 2760
 ggacaccagc aagactgtcc tgaccggtag caaggacacc gtctgcagtg gactcactgg 2820
 tgccgtaaat gtggccaaag ggaccgtcca gacaggtgtg gacacagcca agacggtgct 2880
 gagtggcgct aaggatgcag tgactactgg agtcacgggg gcagtgaatg tggccaaagg 2940
 aaccgtgcag accggcgctg acgcctccaa ggctgtgctt atgggtacca aggacactgt 3000
 cttagtgagg gttaccgggt ccatgagcat ggccaaaggg gccgtccagg ggggcctgga 3060
 caccaccaag acagtgtgta ccggaaccaa agacgcagtg tccgtggggc tcatgggggtc 3120
 aggggaacgtg ggcacagggg ccaccacac tggcctcagc acctccaga actgggtacc 3180
 tagtaccctc gccacctcct ggggtggact caccagttcc aggaccacag ctgactggc 3240
 tgctctccag cctgggccaag aggtgctgtc ggcggaacag gggagctact tegtctgtt 3300
 aggtgacctg ggtcccagct tccgccagcg ggcatttgaa cacgcgtga gccacctgca 3360
 gcacggccag ttccaagcca gggacactct ggcccagctc caggactgct tcaggctgat 3420
 tgaaaaggcc cagcaggctc cagaagggca gccacgtctg gaccagggct caggtgccag 3480
 tgcggaggac gctgctgtcc aggaaggggt ctgcggcctt ctccggcagc tgcacacggc 3540
 ctacagtggc ctggtctcca gcctccaggg cctgcccgcg gagctccagc agccagtggg 3600
 gggggcgcg cagagcctct gtgagctcta tggcatcgtg gcctcagctg gctctgtaga 3660
 ggagctgccc gcagagcggc tgggtgcagag ccgcgagggg gtgcaccagg cttggcaggg 3720
 gttagagcag ctgctggagg gcctacagca caatcccccg ctgactggc tggtagggcc 3780
 cttgccttg cccgctggcg ggcagtagct gtaggagcct gcaggcccgg cgcgggggtc 3839

<210> 58
 <211> 1225
 <212> PRT
 <213> Homo sapiens

<400> 58
 Met Ser Ala Pro Asp Glu Gly Arg Arg Asp Pro Pro Lys Pro Lys Gly
 1 5 10 15
 Lys Pro Pro Ala Pro Met Gln Thr Leu Gly Ser Phe Phe Gly Ser Leu
 20 25 30
 Pro Gly Phe Ser Ser Ala Arg Asn Leu Val Ala Asn Ala His Ser Ser
 35 40 45
 Val Gly Ala Lys Asp Leu Val Cys Ser Lys Met Ser Arg Ala Lys Asp
 50 55 60
 Ala Val Ser Ser Gly Val Ala Ser Val Val Asp Val Ala Lys Gly Val

65	70	75	80
Val Gln Gly Gly Leu Asp Thr Thr Arg Ser Ala Leu Thr Gly Thr Lys	85	90	95
Glu Val Val Ser Ser Gly Val Thr Gly Ala Met Asp Met Ala Lys Gly	100	105	110
Ala Val Gln Gly Gly Leu Asp Thr Ser Lys Ala Val Leu Thr Gly Thr	115	120	125
Lys Asp Thr Val Ser Thr Gly Leu Thr Gly Ala Val Asn Val Ala Lys	130	135	140
Gly Thr Val Gln Ala Gly Val Asp Thr Thr Lys Thr Val Leu Thr Gly	145	150	155
Thr Lys Asp Thr Val Thr Thr Gly Val Met Gly Ala Val Asn Leu Ala	165	170	175
Lys Gly Thr Val Gln Thr Gly Val Glu Thr Ser Lys Ala Val Leu Thr	180	185	190
Gly Thr Lys Asp Ala Val Ser Thr Gly Leu Thr Gly Ala Val Asn Val	195	200	205
Ala Arg Gly Ser Ile Gln Thr Gly Val Asp Thr Ser Lys Thr Val Leu	210	215	220
Thr Gly Thr Lys Asp Thr Val Cys Ser Gly Val Thr Gly Ala Met Asn	225	230	235
Val Ala Lys Gly Thr Ile Gln Thr Gly Val Asp Thr Ser Lys Thr Val	245	250	255
Leu Thr Gly Thr Lys Asp Thr Val Cys Ser Gly Val Thr Gly Ala Met	260	265	270
Asn Val Ala Lys Gly Thr Ile Gln Thr Gly Val Asp Thr Ser Lys Thr	275	280	285
Val Leu Thr Gly Thr Lys Asp Thr Val Cys Ser Gly Val Thr Gly Ala	290	295	300
Met Asn Val Ala Lys Gly Thr Ile Gln Thr Gly Val Asp Thr Thr Lys	305	310	315
Thr Val Leu Thr Gly Thr Lys Asn Thr Val Cys Ser Gly Val Thr Gly	325	330	335
Ala Val Asn Leu Ala Lys Glu Ala Ile Gln Gly Gly Leu Asp Thr Thr	340	345	350
Lys Ser Met Val Met Gly Thr Lys Asp Thr Met Ser Thr Gly Leu Thr	355	360	365
Gly Ala Ala Asn Val Ala Lys Gly Ala Met Gln Thr Gly Leu Asn Thr			

103-3571-103-3571

675				680				685							
Thr	Lys	Asp	Thr	Val	Cys	Ser	Gly	Val	Thr	Gly	Ala	Ala	Asn	Val	Ala
690						695					700				
Lys	Gly	Ala	Ile	Gln	Gly	Gly	Leu	Asp	Thr	Thr	Lys	Ser	Val	Leu	Thr
705					710					715					720
Gly	Thr	Lys	Asp	Ala	Val	Ser	Thr	Gly	Leu	Thr	Gly	Ala	Val	Lys	Leu
				725					730					735	
Ala	Lys	Gly	Thr	Val	Gln	Thr	Gly	Met	Asp	Thr	Thr	Lys	Thr	Val	Leu
			740					745					750		
Thr	Gly	Thr	Lys	Asp	Ala	Val	Cys	Ser	Gly	Val	Thr	Gly	Ala	Ala	Asn
		755					760					765			
Val	Ala	Lys	Gly	Ala	Val	Gln	Met	Gly	Val	Asp	Thr	Ala	Lys	Thr	Val
	770					775					780				
Leu	Thr	Gly	Thr	Lys	Asp	Thr	Val	Cys	Ser	Gly	Val	Thr	Gly	Ala	Ala
785					790					795					800
Asn	Val	Ala	Lys	Gly	Ala	Val	Gln	Thr	Gly	Leu	Lys	Thr	Thr	Gln	Asn
				805					810					815	
Ile	Ala	Thr	Gly	Thr	Lys	Asn	Thr	Leu	Gly	Ser	Gly	Val	Thr	Gly	Ala
			820					825					830		
Ala	Lys	Val	Ala	Lys	Gly	Ala	Val	Gln	Gly	Gly	Leu	Asp	Thr	Thr	Lys
		835					840					845			
Ser	Val	Leu	Thr	Gly	Thr	Lys	Asp	Ala	Val	Ser	Thr	Gly	Leu	Thr	Gly
	850					855					860				
Ala	Val	Asn	Leu	Ala	Lys	Gly	Thr	Val	Gln	Thr	Gly	Val	Asp	Thr	Ser
865					870					875					880
Lys	Thr	Val	Leu	Thr	Gly	Thr	Lys	Asp	Thr	Val	Cys	Ser	Gly	Val	Thr
				885					890					895	
Gly	Ala	Val	Asn	Val	Ala	Lys	Gly	Thr	Val	Gln	Thr	Gly	Val	Asp	Thr
			900					905					910		
Ala	Lys	Thr	Val	Leu	Ser	Gly	Ala	Lys	Asp	Ala	Val	Thr	Thr	Gly	Val
		915					920					925			
Thr	Gly	Ala	Val	Asn	Val	Ala	Lys	Gly	Thr	Val	Gln	Thr	Gly	Val	Asp
	930					935					940				
Ala	Ser	Lys	Ala	Val	Leu	Met	Gly	Thr	Lys	Asp	Thr	Val	Phe	Ser	Gly
945					950					955					960
Val	Thr	Gly	Ala	Met	Ser	Met	Ala	Lys	Gly	Ala	Val	Gln	Gly	Gly	Leu
				965					970					975	
Asp	Thr	Thr	Lys	Thr	Val	Leu	Thr	Gly	Thr	Lys	Asp	Ala	Val	Ser	Ala

gcagcttctt tgggtccctg cctggcttca actctgcccg gaacctggtg gccaacgcac 240
 atagctcggc gagagcccgg cgggcccgtg accccacagg agcgctgct gccgaggctg 300
 cccaaccaca ggctcagggtg gctgcccacc cagagcagac ggcccctatgg acggagaagg 360
 agctgcaacc ttcggaaaag attgaaaagg cccagcaggc tccagaaggg cagccacgtc 420
 tggaccaggg ctcagggtgc agtgccggagg acgctgctgt ccaggaggag cgggatgccg 480
 ggggtctgtc cagggtctgc ggccttctcc ggcagctgca cagggcctac agtggcctgg 540
 tctccagcct cgggggctg cccgcccagc tccagcagcc agtggggcgg gcgcggcaca 600
 qcctctgtga qctctatqgc atcqtqgcct caqctqctc tqtaqaqqaq ctqcccqcaq 660
 agcggctggt gcagagccgc gagggtgtgc accaggcttg gcaggggtta gagcagctgc 720
 tqgaqqcct acaacacaat cccccqctca qctaactaat aaqqcccttc qccttqccca 780
 ctggcgggca gtagctgtag gagcctgcag 810

<210> 60
 <211> 223
 <212> PRT
 <213> Homo sapiens

<400> 60
 Met Ser Ala Pro Asp Glu Gly Arg Arg Asp Pro Pro Lys Pro Lys Gly
 1 5 10 15
 Lys Thr Leu Gly Ser Phe Phe Gly Ser Leu Pro Gly Phe Asn Ser Ala
 20 25 30
 Arg Asn Leu Val Ala Asn Ala His Ser Ser Ala Arg Ala Arg Pro Ala
 35 40 45
 Ala Asp Pro Thr Gly Ala Pro Ala Ala Glu Ala Ala Gln Pro Gln Ala
 50 55 60
 Gln Val Ala Ala His Pro Glu Gln Thr Ala Pro Trp Thr Glu Lys Glu
 65 70 75 80
 Leu Gln Pro Ser Glu Lys Ile Glu Lys Ala Gln Gln Ala Pro Glu Gly
 85 90 95
 Gln Pro Arg Leu Asp Gln Gly Ser Gly Ala Ser Ala Glu Asp Ala Ala
 100 105 110
 Val Gln Glu Arg Asp Ala Gly Val Leu Ser Arg Val Cys Gly Leu
 115 120 125
 Leu Arg Gln Leu His Thr Ala Tyr Ser Gly Leu Val Ser Ser Leu Arg
 130 135 140
 Gly Leu Pro Ala Glu Leu Gln Gln Pro Val Gly Arg Ala Arg His Ser
 145 150 155 160
 Leu Cys Glu Leu Tyr Gly Ile Val Ala Ser Ala Gly Ser Val Glu Glu
 165 170 175
 Leu Pro Ala Glu Arg Leu Val Gln Ser Arg Glu Gly Val His Gln Ala
 180 185 190
 Trp Gln Gly Leu Glu Gln Leu Leu Glu Gly Leu Gln His Asn Pro Pro
 195 200 205

Leu Ser Trp Leu Val Gly Pro Phe Ala Leu Pro Ala Gly Gly Gln
210 215 220

<210> 61

<211> 399

<212> PRT

<213> Homo sapiens

<400> 61

Met Lys Met Arg Phe Leu Gly Leu Val Val Cys Leu Val Leu Trp Pro
1 5 10 15

Leu His Ser Glu Gly Ser Gly Gly Lys Leu Thr Ala Val Asp Pro Glu
20 25 30

Thr Asn Met Asn Val Ser Glu Ile Ile Ser Tyr Trp Gly Phe Pro Ser
35 40 45

Glu Glu Tyr Leu Val Glu Thr Glu Asp Gly Tyr Ile Leu Cys Leu Asn
50 55 60

Arg Ile Pro His Gly Arg Lys Asn His Ser Asp Lys Gly Pro Lys Pro
65 70 75 80

Val Val Phe Leu Gln His Gly Leu Leu Ala Asp Ser Ser Asn Trp Val
85 90 95

Thr Asn Leu Ala Asn Ser Ser Leu Gly Phe Ile Leu Ala Asp Ala Gly
100 105 110

Phe Asp Val Trp Met Gly Asn Ser Arg Gly Asn Thr Trp Ser Arg Lys
115 120 125

His Lys Thr Leu Ser Val Ser Gln Asp Glu Phe Trp Ala Phe Ser Tyr
130 135 140

Asp Glu Met Ala Lys Tyr Asp Leu Pro Ala Ser Ile Asn Phe Ile Leu
145 150 155 160

Asn Lys Thr Gly Gln Glu Gln Val Tyr Tyr Val Gly His Ser Gln Gly
165 170 175

Thr Thr Ile Gly Phe Ile Ala Phe Ser Gln Ile Pro Glu Leu Ala Lys
180 185 190

Arg Ile Lys Met Phe Phe Ala Leu Gly Pro Val Ala Ser Val Ala Phe
195 200 205

Cys Thr Ser Pro Met Ala Lys Leu Gly Arg Leu Pro Asp His Leu Ile
210 215 220

Lys Asp Leu Phe Gly Asp Lys Glu Phe Leu Pro Gln Ser Ala Phe Leu
225 230 235 240

Lys Trp Leu Gly Thr His Val Cys Thr His Val Ile Leu Lys Glu Leu

245 250 255

Cys Gly Asn Leu Cys Phe Leu Leu Cys Gly Phe Asn Glu Arg Asn Leu
260 265 270

Asn Met Ser Arg Val Asp Val Tyr Thr Thr His Ser Pro Ala Gly Thr
275 280 285

Ser Val Gln Asn Met Leu His Trp Ser Gln Ala Val Lys Phe Gln Lys
290 295 300

Phe Gln Ala Phe Asp Trp Gly Ser Ser Ala Lys Asn Tyr Phe His Tyr
305 310 315 320

Asn Gln Ser Tyr Pro Pro Thr Tyr Asn Val Lys Asp Met Leu Val Pro
325 330 335

Thr Ala Val Trp Ser Gly Gly His Asp Trp Leu Ala Asp Val Tyr Asp
340 345 350

Val Asn Ile Leu Leu Thr Gln Ile Thr Asn Leu Val Phe His Glu Ser
355 360 365

Ile Pro Glu Trp Glu His Leu Asp Phe Ile Trp Gly Leu Asp Ala Pro
370 375 380

Trp Arg Leu Tyr Asn Lys Ile Ile Asn Leu Met Arg Lys Tyr Gln
385 390 395

<210> 62
<211> 399
<212> PRT
<213> Homo sapiens

<400> 62

Met Lys Met Arg Phe Leu Gly Leu Val Val Cys Leu Val Leu Trp Thr
1 5 10 15

Leu His Ser Glu Gly Ser Gly Gly Lys Leu Thr Ala Val Asp Pro Glu
20 25 30

Thr Asn Met Asn Val Ser Glu Ile Ile Ser Tyr Trp Gly Phe Pro Ser
35 40 45

Glu Glu Tyr Leu Val Glu Thr Glu Asp Gly Tyr Ile Leu Cys Leu Asn
50 55 60

Arg Ile Pro His Gly Arg Lys Asn His Ser Asp Lys Gly Pro Lys Pro
65 70 75 80

Val Val Phe Leu Gln His Gly Leu Leu Ala Asp Ser Ser Asn Trp Val
85 90 95

Thr Asn Leu Ala Asn Ser Ser Leu Gly Phe Ile Leu Ala Asp Ala Gly
100 105 110

Phe Asp Val Trp Met Gly Asn Ser Arg Gly Asn Thr Trp Ser Arg Lys
115 120 125

His Lys Thr Leu Ser Val Ser Gln Asp Glu Phe Trp Ala Phe Ser Tyr
130 135 140

Asp Glu Met Ala Lys Tyr Asp Leu Pro Ala Ser Ile Asn Phe Ile Leu
145 150 155 160

Asn Lys Thr Glv Gln Glu Gln Val Tyr Tyr Val Glv His Ser Gln Glv
165 170 175

Thr Thr Ile Gly Phe Ile Ala Phe Ser Gln Ile Pro Glu Leu Ala Lys
180 185 190

Arg Ile Lys Met Phe Phe Ala Leu Gly Pro Val Ala Ser Val Ala Phe
195 200 205

Cys Thr Ser Pro Met Ala Lys Leu Gly Arg Leu Pro Asp His Leu Ile
210 215 220

Lys Asp Leu Phe Gly Asp Lys Glu Phe Leu Pro Gln Ser Ala Phe Leu
225 230 235 240

Lys Trp Leu Gly Thr His Val Cys Thr His Val Ile Leu Lys Glu Leu
245 250 255

Cys Gly Asn Leu Cys Phe Leu Leu Cys Gly Phe Asn Glu Arg Asn Leu
260 265 270

Asn Met Ser Arg Val Asp Val Tyr Thr Thr His Ser Pro Ala Gly Thr
275 280 285

Ser Val Gln Asn Met Leu His Trp Ser Gln Ala Val Lys Phe Gln Lys
290 295 300

Phe Gln Ala Phe Asp Trp Gly Ser Ser Ala Lys Asn Tyr Phe His Tyr
305 310 315 320

Asn Gln Ser Tyr Pro Pro Thr Tyr Asn Val Lys Asp Met Leu Val Pro
325 330 335

Thr Ala Val Trp Ser Gly Gly His Asp Trp Leu Ala Asp Val Tyr Asp
340 345 350

Val Asn Ile Leu Leu Thr Gln Ile Thr Asn Leu Val Phe His Glu Ser
355 360 365

Ile Pro Glu Trp Glu His Leu Asp Phe Ile Trp Gly Leu Asp Ala Pro
370 375 380

Trp Arg Leu Tyr Asn Lys Ile Ile Asn Leu Met Arg Lys Tyr Gln
385 390 395

<210> 63
<211> 399

<212> PRT

<213> Homo sapiens

<400> 63

Met Lys Met Arg Phe Leu Gly Leu Val Val Cys Leu Val Leu Trp Pro
1 5 10 15

Leu His Ser Glu Gly Ser Gly Gly Lys Leu Thr Ala Val Asp Pro Glu
20 25 30

Thr Asn Met Asn Val Ser Glu Ile Ile Ser Tyr Trp Gly Phe Pro Ser
35 40 45

Glu Glu Tyr Leu Val Glu Thr Glu Asp Gly Tyr Ile Leu Cys Leu Asn
50 55 60

Arg Ile Pro His Gly Arg Lys Asn His Ser Asp Lys Gly Pro Lys Pro
65 70 75 80

Val Val Phe Leu Gln His Gly Leu Leu Ala Asp Ser Ser Asn Trp Val
85 90 95

Thr Asn Leu Ala Asn Ser Ser Leu Gly Phe Ile Leu Ala Asp Ala Gly
100 105 110

Phe Asp Val Trp Met Gly Asn Ser Arg Gly Asn Thr Trp Ser Arg Lys
115 120 125

His Lys Thr Leu Ser Val Ser Gln Asp Glu Phe Trp Ala Phe Ser Tyr
130 135 140

Asp Glu Met Ala Lys Tyr Asp Leu Pro Ala Ser Ile Asn Phe Ile Leu
145 150 155 160

Asn Lys Thr Gly Gln Glu Gln Val Tyr Tyr Val Gly His Ser Gln Gly
165 170 175

Thr Thr Ile Gly Phe Ile Ala Phe Ser Gln Ile Pro Glu Leu Ala Lys
180 185 190

Arg Ile Lys Met Phe Phe Ala Leu Gly Pro Val Ala Ser Val Ala Phe
195 200 205

Cys Thr Ser Pro Met Ala Lys Leu Gly Arg Leu Pro Asp His Leu Ile
210 215 220

Lys Asp Leu Phe Gly Asp Lys Glu Phe Leu Pro Gln Ser Ala Phe Leu
225 230 235 240

Lys Trp Leu Gly Thr His Val Cys Thr His Val Ile Leu Lys Glu Leu
245 250 255

Cys Gly Asn Leu Cys Phe Leu Leu Cys Gly Phe Asn Glu Arg Asn Leu
260 265 270

Asn Met Ser Arg Val Asp Val Tyr Thr Thr His Ser Pro Ala Gly Thr
275 280 285

10-270-111

Ser Val Gln Asn Met Leu His Trp Ser Gln Ala Val Lys Phe Gln Lys
290 295 300

Phe Gln Ala Phe Asp Trp Gly Ser Ser Ala Lys Asn Tyr Phe His Tyr
305 310 315 320

Asn Gln Ser Tyr Pro Pro Thr Tyr Asn Val Lys Asp Met Leu Val Pro
325 330 335

Thr Ala Val Trp Ser Gly Gly His Asp Trp Leu Ala Asp Val Tyr Asp
340 345 350

Val Asn Ile Leu Leu Thr Gln Ile Thr Asn Leu Val Phe His Glu Ser
355 360 365

Ile Pro Glu Trp Glu His Leu Asp Phe Ile Trp Gly Leu Asp Ala Pro
370 375 380

Trp Arg Leu Tyr Asn Lys Ile Ile Asn Leu Met Arg Lys Tyr Gln
385 390 395

<210> 64

<211> 399

<212> PRT

<213> Homo sapiens

<400> 64

Met Lys Met Arg Phe Leu Gly Leu Val Val Cys Leu Val Leu Trp Pro
1 5 10 15

Leu His Ser Glu Gly Ser Gly Gly Lys Leu Thr Ala Val Asp Pro Glu
20 25 30

Thr Asn Met Asn Val Ser Glu Ile Ile Ser Tyr Trp Gly Phe Pro Ser
35 40 45

Glu Glu Tyr Leu Val Glu Thr Glu Asp Gly Tyr Ile Leu Cys Leu Asn
50 55 60

Arg Ile Pro His Gly Arg Lys Asn His Ser Asp Lys Gly Pro Lys Pro
65 70 75 80

Val Val Phe Leu Gln His Gly Leu Leu Ala Asp Ser Ser Asn Trp Val
85 90 95

Thr Asn Leu Ala Asn Ser Ser Leu Gly Phe Ile Leu Ala Asp Ala Gly
100 105 110

Phe Asp Val Trp Met Gly Asn Ser Arg Gly Asn Thr Trp Ser Arg Lys
115 120 125

His Lys Thr Leu Ser Val Ser Gln Asp Glu Phe Trp Ala Phe Ser Tyr
130 135 140

Asp Glu Met Ala Lys Tyr Asp Leu Pro Ala Ser Ile Asn Phe Ile Leu

ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED

145											150											155											160
Asn	Lys	Thr	Gly	Gln	Glu	Gln	Val	Tyr	Tyr	Val	Gly	His	Ser	Gln	Gly																		
				165					170																								
Thr	Thr	Ile	Gly	Phe	Ile	Ala	Phe	Ser	Gln	Ile	Pro	Glu	Leu	Ala	Lys																		
				180					185				190																				
Arg	Ile	Lys	Met	Phe	Phe	Ala	Leu	Gly	Pro	Val	Ala	Ser	Val	Ala	Phe																		
				195					200				205																				
Cys	Thr	Ser	Pro	Met	Ala	Lys	Leu	Gly	Arg	Leu	Pro	Asp	His	Leu	Ile																		
				210					215				220																				
Lys	Asp	Leu	Phe	Gly	Asp	Lys	Glu	Phe	Leu	Pro	Gln	Ser	Ala	Phe	Leu																		
				225					230				235																				
Lys	Trp	Leu	Gly	Thr	His	Val	Cys	Thr	His	Val	Ile	Leu	Lys	Glu	Leu																		
				245					250				255																				
Cys	Gly	Asn	Leu	Cys	Phe	Leu	Leu	Cys	Gly	Phe	Asn	Glu	Arg	Asn	Leu																		
				260					265				270																				
Asn	Met	Ser	Arg	Val	Asp	Val	Tyr	Thr	Thr	His	Ser	Pro	Ala	Gly	Thr																		
				275					280				285																				
Ser	Val	Gln	Asn	Met	Leu	His	Trp	Ser	Gln	Ala	Val	Lys	Phe	Gln	Lys																		
				290					295				300																				
Phe	Gln	Ala	Phe	Asp	Trp	Gly	Ser	Ser	Ala	Lys	Asn	Tyr	Phe	His	Tyr																		
				305					310				315				320																
Asn	Gln	Ser	Tyr	Pro	Pro	Thr	Tyr	Asn	Val	Lys	Asp	Met	Leu	Val	Pro																		
				325					330				335																				
Thr	Ala	Val	Trp	Ser	Gly	Gly	His	Asp	Trp	Leu	Ala	Asp	Val	Tyr	Asp																		
				340					345				350																				
Val	Asn	Ile	Leu	Leu	Thr	Gln	Ile	Thr	Asn	Leu	Val	Phe	His	Glu	Ser																		
				355					360				365																				
Ile	Pro	Glu	Trp	Glu	His	Leu	Asp	Phe	Ile	Trp	Gly	Leu	Asp	Ala	Pro																		
				370					375				380																				
Trp	Arg	Leu	Tyr	Asn	Lys	Ile	Ile	Asn	Leu	Met	Arg	Lys	Tyr	Gln																			
				385					390				395																				

```
<210> 65
<211> 398
<212> PRT
<213> Homo sapiens
```

<400> 65
Met Trp Leu Leu Leu Thr Met Ala Ser Leu Ile Ser Val Leu Gly Thr
1 5 10 15

4005304-212

LOS ANGELES

```
<210> 66
<211> 232
<212> PRT
<213> Homo sapiens
```

<400>	66																
Phe	Arg	Val	Ile	Leu	Leu	Asp	Leu	Arg	Gly	Phe	Gly	Glu	Ser	Ser	Pro		
1				5					10						15		
Ser	Asp	Leu	Ala	Glu	Tyr	Arg	Phe	Asp	Asp	Leu	Ala	Glu	Asp	Leu	Glu		
			20					25					30				
Ala	Leu	Leu	Asp	Ala	Leu	Gly	Leu	Glu	Lys	Pro	Val	Ile	Leu	Val	Gly		
		35					40					45					
His	Ser	Met	Gly	Gly	Ala	Ile	Ala	Leu	Ala	Tyr	Ala	Ala	Lys	Tyr	Pro		
	50					55					60						
Glu	Leu	Arg	Val	Lys	Ala	Leu	Val	Leu	Val	Ser	Pro	Pro	Leu	Pro	Ala		
65					70					75					80		
Gly	Leu	Ser	Ser	Asp	Leu	Phe	Pro	Arg	Gln	Gly	Asn	Leu	Glu	Gly	Leu		
				85					90					95			
Leu	Leu	Ala	Asn	Phe	Arg	Asn	Arg	Leu	Ser	Arg	Ser	Val	Glu	Ala	Leu		
			100					105					110				
Leu	Gly	Arg	Ala	Leu	Lys	Gln	Phe	Phe	Leu	Leu	Gly	Arg	Pro	Leu	Val		
		115					120					125					
Ser	Asp	Phe	Leu	Lys	Gln	Ala	Glu	Asp	Trp	Leu	Ser	Ser	Leu	Ile	Arg		
	130					135						140					
Gln	Gly	Glu	Asp	Asp	Gly	Gly	Asp	Gly	Leu	Leu	Gly	Ala	Ala	Val	Ala		
145					150					155					160		
Leu	Gly	Lys	Leu	Leu	Gln	Trp	Asp	Leu	Ser	Ala	Leu	Lys	Asp	Ile	Lys		
			165					170						175			
Val	Pro	Thr	Leu	Val	Ile	Trp	Gly	Thr	Asp	Asp	Pro	Leu	Val	Pro	Leu		
			180					185					190				

Asp Ala Ser Glu Lys Leu Ser Ala Leu Ile Pro Asn Ala Glu Val Val
195 200 205

Val Ile Asp Asp Ala Gly His Leu Ala Leu Leu Glu Lys Pro Glu Glu
210 215 220

Val Ala Glu Leu Ile Lys Phe Leu
225 230

<210> 67
<211> 3312
<212> PRT
<213> Homo sapiens

<400> 67
Met Met Ala Arg Arg Pro Pro Trp Arg Gly Leu Gly Glu Arg Ser Thr
1 5 10 15

Pro Ile Leu Leu Leu Leu Leu Ser Leu Phe Pro Leu Ser Gln Glu
20 25 30

Glu Leu Gly Gly Gly Gly His Gln Gly Trp Asp Pro Gly Leu Ala Ala
35 40 45

Thr Thr Gly Pro Arg Ala His Ile Gly Gly Gly Ala Leu Ala Leu Cys
50 55 60

Pro Glu Ser Ser Gly Val Arg Glu Asp Gly Gly Pro Gly Leu Gly Val
65 70 75 80

Arg Glu Pro Ile Phe Val Gly Leu Arg Gly Arg Arg Gln Ser Ala Arg
85 90 95

Asn Ser Arg Gly Pro Pro Glu Gln Pro Asn Glu Glu Leu Gly Ile Glu
100 105 110

His Gly Val Gln Pro Leu Gly Ser Arg Glu Arg Glu Thr Gly Gln Gly
115 120 125

Pro Gly Ser Val Leu Tyr Trp Arg Pro Glu Val Ser Ser Cys Gly Arg
130 135 140

Thr Gly Pro Leu Gln Arg Gly Ser Leu Ser Pro Gly Ala Leu Ser Ser
145 150 155 160

Gly Val Pro Gly Ser Gly Asn Ser Ser Pro Leu Pro Ser Asp Phe Leu
165 170 175

Ile Arg His His Gly Pro Lys Pro Val Ser Ser Gln Arg Asn Ala Gly
180 185 190

Thr Gly Ser Arg Lys Arg Val Gly Thr Ala Arg Cys Cys Gly Glu Leu
195 200 205

Trp Ala Thr Gly Ser Lys Gly Gln Gly Glu Arg Ala Thr Thr Ser Gly

210	215	220
Ala Glu Arg Thr Ala	Pro Arg Arg Asn Cys	Leu Pro Gly Ala Ser Gly
225	230	235 240
Ser Gly Pro Glu Leu	Asp Ser Ala Pro Arg	Thr Ala Arg Thr Ala Pro
	245	250 255
Ala Ser Gly Ser Ala	Pro Arg Glu Ser Arg	Thr Ala Pro Glu Pro Ala
	260	265 270
Pro Lys Arg Met Arg	Ser Arg Gly Leu Phe	Arg Cys Arg Phe Leu Pro
	275	280 285
Gln Arg Pro Gly Pro	Arg Pro Pro Gly Leu	Pro Ala Arg Pro Glu Ala
	290	295 300
Arg Lys Val Thr Ser	Ala Asn Arg Ala Arg	Phe Arg Arg Ala Ala Asn
	305	310 315 320
Arg His Pro Gln Phe	Pro Gln Tyr Asn Tyr	Gln Thr Leu Val Pro Glu
	325	330 335
Asn Glu Ala Ala Gly	Thr Ala Val Leu Arg	Val Val Ala Gln Asp Pro
	340	345 350
Asp Ala Gly Glu Ala	Gly Arg Leu Val Tyr	Ser Leu Ala Ala Leu Met
	355	360 365
Asn Ser Arg Ser Leu	Glu Leu Phe Ser Ile	Asp Pro Gln Ser Gly Leu
	370	375 380
Ile Arg Thr Ala Ala	Ala Leu Asp Arg Glu	Ser Met Glu Arg His Tyr
	385	390 395 400
Leu Arg Val Thr Ala	Gln Asp His Gly Ser	Pro Arg Leu Ser Ala Thr
	405	410 415
Thr Met Val Ala Val	Thr Val Ala Asp Arg	Asn Asp His Ser Pro Val
	420	425 430
Phe Glu Gln Ala Gln	Tyr Arg Glu Thr Leu	Arg Glu Asn Val Glu Glu
	435	440 445
Gly Tyr Pro Ile Leu	Gln Leu Arg Ala Thr	Asp Gly Asp Ala Pro Pro
	450	455 460
Asn Ala Asn Leu Arg	Tyr Arg Phe Val Gly	Pro Pro Ala Ala Arg Ala
	465	470 475 480
Ala Ala Ala Ala Ala	Phe Glu Ile Asp Pro	Arg Ser Gly Leu Ile Ser
	485	490 495
Thr Ser Gly Arg Val	Asp Arg Glu His Met	Glu Ser Tyr Glu Leu Val
	500	505 510
Val Glu Ala Ser Asp	Gln Gly Gln Glu Pro	Gly Pro Arg Ser Ala Thr

10033954 10333954

515					520					525						
Val	Arg	Val	His	Ile	Thr	Val	Leu	Asp	Glu	Asn	Asp	Asn	Ala	Pro	Gln	
530					535					540						
Phe	Ser	Glu	Lys	Arg	Tyr	Val	Ala	Gln	Val	Arg	Glu	Asp	Val	Arg	Pro	
545					550					555					560	
His	Thr	Val	Val	Leu	Arg	Val	Thr	Ala	Thr	Asp	Arg	Asp	Lys	Asp	Ala	
565					570					575						
Asn	Gly	Leu	Val	His	Tyr	Asn	Ile	Ile	Ser	Gly	Asn	Ser	Arg	Gly	His	
580					585					590						
Phe	Ala	Ile	Asp	Ser	Leu	Thr	Gly	Glu	Ile	Gln	Val	Val	Ala	Pro	Leu	
595					600					605						
Asp	Phe	Glu	Ala	Glu	Arg	Glu	Tyr	Ala	Leu	Arg	Ile	Arg	Ala	Gln	Asp	
610					615					620						
Ala	Gly	Arg	Pro	Pro	Leu	Ser	Asn	Asn	Thr	Gly	Leu	Ala	Ser	Ile	Gln	
625					630					635					640	
Val	Val	Asp	Ile	Asn	Asp	His	Ile	Pro	Ile	Phe	Val	Ser	Thr	Pro	Phe	
645					650					655						
Gln	Val	Ser	Val	Leu	Glu	Asn	Ala	Pro	Leu	Gly	His	Ser	Val	Ile	His	
660					665					670						
Ile	Gln	Ala	Val	Asp	Ala	Asp	His	Gly	Glu	Asn	Ala	Arg	Leu	Glu	Tyr	
675					680					685						
Ser	Leu	Thr	Gly	Val	Ala	Pro	Asp	Thr	Pro	Phe	Val	Ile	Asn	Ser	Ala	
690					695					700						
Thr	Gly	Trp	Val	Ser	Val	Ser	Gly	Pro	Leu	Asp	Arg	Glu	Ser	Val	Glu	
705					710					715					720	
His	Tyr	Phe	Phe	Gly	Val	Glu	Ala	Arg	Asp	His	Gly	Ser	Pro	Pro	Leu	
725					730					735						
Ser	Ala	Ser	Ala	Ser	Val	Thr	Val	Thr	Val	Leu	Asp	Val	Asn	Asp	Asn	
740					745					750						
Arg	Pro	Glu	Phe	Thr	Met	Lys	Glu	Tyr	His	Leu	Arg	Leu	Asn	Glu	Asp	
755					760					765						
Ala	Ala	Val	Gly	Thr	Ser	Val	Val	Ser	Val	Thr	Ala	Val	Asp	Arg	Asp	
770					775					780						
Ala	Asn	Ser	Ala	Ile	Ser	Tyr	Gln	Ile	Thr	Gly	Gly	Asn	Thr	Arg	Asn	
785					790					795					800	
Arg	Phe	Ala	Ile	Ser	Thr	Gln	Gly	Gly	Val	Gly	Leu	Val	Thr	Leu	Ala	
805					810					815						
Leu	Pro	Leu	Asp	Tyr	Lys	Gln	Glu	Arg	Tyr	Phe	Lys	Leu	Val	Leu	Thr	

820										825					830				
Ala	Ser	Asp	Arg	Ala	Leu	His	Asp	His	Cys	Tyr	Val	His	Ile	Asn	Ile				
		835					840					845							
Thr	Asp	Ala	Asn	Thr	His	Arg	Pro	Val	Phe	Gln	Ser	Ala	His	Tyr	Ser				
	850					855					860								
Val	Ser	Val	Asn	Glu	Asp	Arg	Pro	Met	Gly	Ser	Thr	Ile	Val	Val	Ile				
865					870					875					880				
Ser	Ala	Ser	Asp	Asp	Asp	Val	Gly	Glu	Asn	Ala	Arg	Ile	Thr	Tyr	Leu				
				885					890					895					
Leu	Glu	Asp	Asn	Leu	Pro	Gln	Phe	Arg	Ile	Asp	Ala	Asp	Ser	Gly	Ala				
			900					905					910						
Ile	Thr	Leu	Gln	Ala	Pro	Leu	Asp	Tyr	Glu	Asp	Gln	Val	Thr	Tyr	Thr				
		915					920					925							
Leu	Ala	Ile	Thr	Ala	Arg	Asp	Asn	Gly	Ile	Pro	Gln	Lys	Ala	Asp	Thr				
	930					935					940								
Thr	Tyr	Val	Glu	Val	Met	Val	Asn	Asp	Val	Asn	Asp	Asn	Ala	Pro	Gln				
945					950					955					960				
Phe	Val	Ala	Ser	His	Tyr	Thr	Gly	Leu	Val	Ser	Glu	Asp	Ala	Pro	Pro				
				965					970					975					
Phe	Thr	Ser	Val	Leu	Gln	Ile	Ser	Ala	Thr	Asp	Arg	Asp	Ala	His	Ala				
			980					985					990						
Asn	Gly	Arg	Val	Gln	Tyr	Thr	Phe	Gln	Asn	Gly	Glu	Asp	Gly	Asp	Gly				
		995					1000					1005							
Asp	Phe	Thr	Ile	Glu	Pro	Thr	Ser	Gly	Ile	Val	Arg	Thr	Val	Arg	Arg				
	1010					1015					1020								
Leu	Asp	Arg	Glu	Ala	Val	Ser	Val	Tyr	Glu	Leu	Thr	Ala	Tyr	Ala	Val				
1025					1030					1035					1040				
Asp	Arg	Gly	Val	Pro	Pro	Leu	Arg	Thr	Pro	Val	Ser	Ile	Gln	Val	Met				
				1045					1050					1055					
Val	Gln	Asp	Val	Asn	Asp	Asn	Ala	Pro	Val	Phe	Pro	Ala	Glu	Glu	Phe				
		1060						1065					1070						
Glu	Val	Arg	Val	Lys	Glu	Asn	Ser	Ile	Val	Gly	Ser	Val	Val	Ala	Gln				
	1075					1080						1085							
Ile	Thr	Ala	Val	Asp	Pro	Asp	Glu	Gly	Pro	Asn	Ala	His	Ile	Met	Tyr				
	1090					1095					1100								
Gln	Ile	Val	Glu	Gly	Asn	Ile	Pro	Glu	Leu	Phe	Gln	Met	Asp	Ile	Phe				
1105					1110					1115					1120				
Ser	Gly	Glu	Leu	Thr	Ala	Leu	Ile	Asp	Leu	Asp	Tyr	Glu	Ala	Arg	Gln				

	1125		1130		1135
Glu Tyr Val Ile Val Val Gln Ala Thr Ser Ala Pro Leu Val Ser Arg	1140		1145		1150
Ala Thr Val His Val Arg Leu Val Asp Gln Asn Asp Asn Ser Pro Val	1155		1160		1165
Leu Asn Asn Phe Gln Ile Leu Phe Asn Asn Tyr Val Ser Asn Arg Ser	1170		1175		1180
Asp Thr Phe Pro Ser Gly Ile Ile Gly Arg Ile Pro Ala Tyr Asp Pro	1185		1190		1195
Asp Val Ser Asp His Leu Phe Tyr Ser Phe Glu Arg Gly Asn Glu Leu	1205		1210		1215
Gln Leu Leu Val Val Asn Gln Thr Ser Gly Glu Leu Arg Leu Ser Arg	1220		1225		1230
Lys Leu Asp Asn Asn Arg Pro Leu Val Ala Ser Met Leu Val Thr Val	1235		1240		1245
Thr Asp Gly Leu His Ser Val Thr Ala Gln Cys Val Leu Arg Val Val	1250		1255		1260
Ile Ile Thr Glu Glu Leu Leu Ala Asn Ser Leu Thr Val Arg Leu Glu	1265		1270		1275
Asn Met Trp Gln Glu Arg Phe Leu Ser Pro Leu Leu Gly Arg Phe Leu	1285		1290		1295
Glu Gly Val Ala Ala Val Leu Ala Thr Pro Ala Glu Asp Val Phe Ile	1300		1305		1310
Phe Asn Ile Gln Asn Asp Thr Asp Val Gly Gly Thr Val Leu Asn Val	1315		1320		1325
Ser Phe Ser Ala Leu Ala Pro Arg Gly Ala Gly Ala Gly Ala Ala Gly	1330		1335		1340
Pro Trp Phe Ser Ser Glu Glu Leu Gln Glu Gln Leu Tyr Val Arg Arg	1345		1350		1355
Ala Ala Leu Ala Ala Arg Ser Leu Leu Asp Val Leu Pro Phe Asp Asp	1365		1370		1375
Asn Val Cys Leu Arg Glu Pro Cys Glu Asn Tyr Met Lys Cys Val Ser	1380		1385		1390
Val Leu Arg Phe Asp Ser Ser Ala Pro Phe Leu Ala Ser Ala Ser Thr	1395		1400		1405
Leu Phe Arg Pro Ile Gln Pro Ile Ala Gly Leu Arg Cys Arg Cys Pro	1410		1415		1420
Pro Gly Phe Thr Gly Asp Phe Cys Glu Thr Glu Leu Asp Leu Cys Tyr					

1425 1430 1435 1440

Ser Asn Pro Cys Arg Asn Gly Gly Ala Cys Ala Arg Arg Glu Gly Gly
 1445 1450 1455

Tyr Thr Cys Val Cys Arg Pro Arg Phe Thr Gly Glu Asp Cys Glu Leu
 1460 1465 1470

Asp Thr Glu Ala Gly Arg Cys Val Pro Gly Val Cys Arg Asn Gly Gly
 1475 1480 1485

Thr Cys Thr Asp Ala Pro Asn Gly Gly Phe Arg Cys Gln Cys Pro Ala
 1490 1495 1500

Gly Gly Ala Phe Glu Gly Pro Arg Cys Glu Val Ala Ala Arg Ser Phe
1505 1510 1515 1520

Pro Pro Ser Ser Phe Val Met Phe Arg Gly Leu Arg Gln Arg Phe His
 1525 1530 1535

Leu Thr Leu Ser Leu Ser Phe Ala Thr Val Gln Gln Ser Gly Leu Leu
 1540 1545 1550

Phe Tyr Asn Gly Arg Leu Asn Glu Lys His Asp Phe Leu Ala Leu Glu
 1555 1560 1565

Leu Val Ala Gly Gln Val Arg Leu Thr Tyr Ser Thr Gly Glu Ser Asn
1570 1575 1580

Thr Val Val Ser Pro Thr Val Pro Gly Gly Leu Ser Asp Gly Gln Trp
1585 1590 1595 1600

His Thr Val His Leu Arg Tyr Tyr Asn Lys Pro Arg Thr Asp Ala Leu
 1605 1610 1615

Gly Gly Ala Gln Gly Pro Ser Lys Asp Lys Val Ala Val Leu Ser Val
 1620 1625 1630

Asp Asp Cys Asp Val Ala Val Ala Leu Gln Phe Gly Ala Glu Ile Gly
 1635 1640 1645

Asn Tyr Ser Cys Ala Ala Ala Gly Val Gln Thr Ser Ser Lys Lys Ser
1650 1655 1660

Leu Asp Leu Thr Gly Pro Leu Leu Leu Gly Gly Val Pro Asn Leu Pro
1665 1670 1675 1680

Glu Asn Phe Pro Val Ser His Lys Asp Phe Ile Gly Cys Met Arg Asp
 1685 1690 1695

Leu His Ile Asp Gly Arg Arg Val Asp Met Ala Ala Phe Val Ala Asn
 1700 1705 1710

Asn Gly Thr Met Ala Gly Cys Gln Ala Lys Leu His Phe Cys Asp Ser
1715 1720 1725

Gly Pro Cys Lys Asn Ser Gly Phe Cys Ser Glu Arg Trp Gly Ser Phe

SECRET

1730	1735	1740
Ser Cys Asp Cys Pro Val Gly Phe Gly Gly Lys Asp Cys Gln Leu Thr 1745 1750 1755 1760		
Met Ala His Pro His His Phe Arg Gly Asn Gly Thr Leu Ser Trp Asn 1765 1770 1775		
Phe Gly Ser Asp Met Ala Val Ser Val Pro Trp Tyr Leu Gly Leu Ala 1780 1785 1790		
Phe Arg Thr Arg Ala Thr Gln Gly Val Leu Met Gln Val Gln Ala Gly 1795 1800 1805		
Pro His Ser Thr Leu Leu Cys Gln Leu Asp Arg Gly Leu Leu Ser Val 1810 1815 1820		
Thr Val Thr Arg Gly Ser Gly Arg Ala Ser His Leu Leu Leu Asp Gln 1825 1830 1835 1840		
Val Thr Val Ser Asp Gly Arg Trp His Asp Leu Arg Leu Glu Leu Gln 1845 1850 1855		
Glu Glu Pro Gly Gly Arg Arg Gly His His Val Leu Met Val Ser Leu 1860 1865 1870		
Asp Phe Ser Leu Phe Gln Asp Thr Met Ala Val Gly Ser Glu Leu Gln 1875 1880 1885		
Gly Leu Lys Val Lys Gln Leu His Val Gly Gly Leu Pro Pro Gly Ser 1890 1895 1900		
Ala Glu Glu Ala Pro Gln Gly Leu Val Gly Cys Ile Gln Gly Val Trp 1905 1910 1915 1920		
Leu Gly Ser Thr Pro Ser Gly Ser Pro Ala Leu Leu Pro Pro Ser His 1925 1930 1935		
Arg Val Asn Ala Glu Pro Gly Cys Val Val Thr Asn Ala Cys Ala Ser 1940 1945 1950		
Gly Pro Cys Pro Pro His Ala Asp Cys Arg Asp Leu Trp Gln Thr Phe 1955 1960 1965		
Ser Cys Thr Cys Gln Pro Gly Tyr Tyr Gly Pro Gly Cys Val Asp Ala 1970 1975 1980		
Cys Leu Leu Asn Pro Cys Gln Asn Gln Gly Ser Cys Arg His Leu Pro 1985 1990 1995 2000		
Gly Ala Pro His Gly Tyr Thr Cys Asp Cys Val Gly Gly Tyr Phe Gly 2005 2010 2015		
His His Cys Glu His Arg Met Asp Gln Gln Cys Pro Arg Gly Trp Trp 2020 2025 2030		
Gly Ser Pro Thr Cys Gly Pro Cys Asn Cys Asp Val His Lys Gly Phe		

	2035							2040										2045
Asp	Pro	Asn	Cys	Asn	Lys	Thr	Asn	Gly	Gln	Cys	His	Cys	Lys	Glu	Phe			
	2050						2055					2060						
His	Tyr	Arg	Pro	Arg	Gly	Ser	Asp	Ser	Cys	Leu	Pro	Cys	Asp	Cys	Tyr			
	2065					2070					2075					2080		
Pro	Val	Gly	Ser	Thr	Ser	Arg	Ser	Cys	Ala	Pro	His	Ser	Gly	Gln	Cys			
					2085					2090					2095			
Pro	Cys	Arg	Pro	Gly	Ala	Leu	Gly	Arg	Gln	Cys	Asn	Ser	Cys	Asp	Ser			
			2100						2105					2110				
Pro	Phe	Ala	Glu	Val	Thr	Ala	Ser	Gly	Cys	Arg	Val	Leu	Tyr	Asp	Ala			
		2115					2120						2125					
Cys	Pro	Lys	Ser	Leu	Arg	Ser	Gly	Val	Trp	Trp	Pro	Gln	Thr	Lys	Phe			
	2130					2135						2140						
Gly	Val	Leu	Ala	Thr	Val	Pro	Cys	Pro	Arg	Gly	Ala	Leu	Gly	Ala	Ala			
	2145				2150					2155					2160			
Val	Arg	Leu	Cys	Asp	Glu	Ala	Gln	Gly	Trp	Leu	Glu	Pro	Asp	Leu	Phe			
			2165						2170						2175			
Asn	Cys	Thr	Ser	Pro	Ala	Phe	Arg	Glu	Leu	Ser	Leu	Leu	Leu	Asp	Gly			
		2180						2185						2190				
Leu	Glu	Leu	Asn	Lys	Thr	Ala	Leu	Asp	Thr	Met	Glu	Ala	Lys	Lys	Leu			
	2195						2200						2205					
Ala	Gln	Arg	Leu	Arg	Glu	Val	Thr	Gly	His	Thr	Asp	His	Tyr	Phe	Ser			
	2210					2215					2220							
Gln	Asp	Val	Arg	Val	Thr	Ala	Arg	Leu	Leu	Ala	His	Leu	Leu	Ala	Phe			
	2225				2230					2235					2240			
Glu	Ser	His	Gln	Gln	Gly	Phe	Gly	Leu	Thr	Ala	Thr	Gln	Asp	Ala	His			
			2245					2250						2255				
Phe	Asn	Glu	Asn	Leu	Leu	Trp	Ala	Gly	Ser	Ala	Leu	Leu	Ala	Pro	Glu			
		2260					2265						2270					
Thr	Gly	Asp	Leu	Trp	Ala	Ala	Leu	Gly	Gln	Arg	Ala	Pro	Gly	Gly	Ser			
	2275					2280						2285						
Pro	Gly	Ser	Ala	Gly	Leu	Val	Arg	His	Leu	Glu	Glu	Tyr	Ala	Ala	Thr			
	2290					2295					2300							
Leu	Ala	Arg	Asn	Met	Glu	Leu	Thr	Tyr	Leu	Asn	Pro	Met	Gly	Leu	Val			
	2305				2310					2315				2320				
Thr	Pro	Asn	Ile	Met	Leu	Ser	Ile	Asp	Arg	Met	Glu	His	Pro	Ser	Ser			
		2325						2330						2335				
Pro	Arg	Gly	Ala	Arg	Arg	Tyr	Pro	Arg	Tyr	His	Ser	Asn	Leu	Phe	Arg			

2340	2345	2350
Gly Gln Asp Ala Trp Asp Pro His Thr His Val Leu Leu Pro Ser Gln		
2355	2360	2365
Ser Pro Arg Pro Ser Pro Ser Glu Val Leu Pro Thr Ser Ser Ser Ile		
2370	2375	2380
Glu Asn Ser Thr Thr Ser Ser Val Val Pro Pro Pro Ala Pro Pro Glu		
2385	2390	2395
Pro Glu Pro Gly Ile Ser Ile Ile Ile Leu Leu Val Tyr Arg Thr Leu		
2405	2410	2415
Gly Gly Leu Leu Pro Ala Gln Phe Gln Ala Glu Arg Arg Gly Ala Arg		
2420	2425	2430
Leu Pro Gln Asn Pro Val Met Asn Ser Pro Val Val Ser Val Ala Val		
2435	2440	2445
Phe His Gly Arg Asn Phe Leu Arg Gly Ile Leu Glu Ser Pro Ile Ser		
2450	2455	2460
Leu Glu Phe Arg Leu Leu Gln Thr Ala Asn Arg Ser Lys Ala Ile Cys		
2465	2470	2475
Val Gln Trp Asp Pro Pro Gly Leu Ala Glu Gln His Gly Val Trp Thr		
2485	2490	2495
Ala Arg Asp Cys Glu Leu Val His Arg Asn Gly Ser His Ala Arg Cys		
2500	2505	2510
Arg Cys Ser Arg Thr Gly Thr Phe Gly Val Leu Met Asp Ala Ser Pro		
2515	2520	2525
Arg Glu Arg Leu Glu Gly Asp Leu Glu Leu Leu Ala Val Phe Thr His		
2530	2535	2540
Val Val Val Ala Val Ser Val Ala Ala Leu Val Leu Thr Ala Ala Ile		
2545	2550	2555
Leu Leu Ser Leu Arg Ser Leu Lys Ser Asn Val Arg Gly Ile His Ala		
2565	2570	2575
Asn Val Ala Ala Ala Leu Gly Val Ala Glu Leu Leu Phe Leu Leu Gly		
2580	2585	2590
Ile His Arg Thr His Asn Gln Leu Val Cys Thr Ala Val Ala Ile Leu		
2595	2600	2605
Leu His Tyr Phe Phe Leu Ser Thr Phe Ala Trp Leu Phe Val Gln Gly		
2610	2615	2620
Leu His Leu Tyr Arg Met Gln Val Glu Pro Arg Asn Val Asp Arg Gly		
2625	2630	2635
Ala Met Arg Phe Tyr His Ala Leu Gly Trp Gly Val Pro Ala Val Leu		

2645	2650	2655
Leu Gly Leu Ala Val Gly Leu Asp Pro Glu Gly Tyr Gly Asn Pro Asp 2660 2665 2670		
Phe Cys Trp Ile Ser Val His Glu Pro Leu Ile Trp Ser Phe Ala Gly 2675 2680 2685		
Pro Val Val Leu Val Ile Val Met Asn Gly Thr Met Phe Leu Leu Ala 2690 2695 2700		
Ala Arg Thr Ser Cys Ser Thr Gly Gln Arg Glu Ala Lys Lys Thr Ser 2705 2710 2715 2720		
Ala Leu Thr Leu Arg Ser Ser Phe Leu Leu Leu Leu Leu Val Ser Ala 2725 2730 2735		
Ser Trp Leu Phe Gly Leu Leu Ala Val Asn His Ser Ile Leu Ala Phe 2740 2745 2750		
His Tyr Leu His Ala Gly Leu Cys Gly Leu Gln Gly Leu Ala Val Leu 2755 2760 2765		
Leu Leu Phe Cys Val Leu Asn Ala Asp Ala Arg Ala Ala Trp Met Pro 2770 2775 2780		
Ala Cys Leu Gly Arg Lys Ala Ala Pro Glu Glu Ala Arg Pro Ala Pro 2785 2790 2795 2800		
Gly Leu Gly Pro Gly Ala Tyr Asn Asn Thr Ala Leu Phe Glu Glu Ser 2805 2810 2815		
Gly Leu Ile Arg Ile Thr Leu Gly Ala Ser Thr Val Ser Ser Val Ser 2820 2825 2830		
Ser Ala Arg Ser Gly Arg Thr Gln Asp Gln Asp Ser Gln Arg Gly Arg 2835 2840 2845		
Ser Tyr Leu Arg Asp Asn Val Leu Val Arg His Gly Ser Ala Ala Asp 2850 2855 2860		
His Thr Asp His Ser Leu Gln Ala His Ala Gly Pro Thr Asp Leu Asp 2865 2870 2875 2880		
Val Ala Met Phe His Arg Asp Ala Gly Ala Asp Ser Asp Ser Asp Ser 2885 2890 2895		
Asp Leu Ser Leu Glu Glu Glu Arg Ser Leu Ser Ile Pro Ser Ser Glu 2900 2905 2910		
Ser Glu Asp Asn Gly Arg Thr Arg Gly Arg Phe Gln Arg Pro Leu Cys 2915 2920 2925		
Arg Ala Ala Gln Ser Glu Arg Leu Leu Thr His Pro Lys Asp Val Asp 2930 2935 2940		
Gly Asn Asp Leu Leu Ser Tyr Trp Pro Ala Leu Gly Glu Cys Glu Ala		

2945 2950 2955 2960
Ala Pro Cys Ala Leu Gln Thr Trp Gly Ser Glu Arg Arg Leu Gly Leu
 2965 2970 2975
Asp Thr Ser Lys Asp Ala Ala Asn Asn Asn Gln Pro Asp Pro Ala Leu
 2980 2985 2990
Thr Ser Gly Asp Glu Thr Ser Leu Gly Arg Ala Gln Arg Gln Arg Lys
 2995 3000 3005
Gly Ile Leu Lys Asn Arg Leu Gln Tyr Pro Leu Val Pro Gln Thr Arg
 3010 3015 3020
Gly Ala Pro Glu Leu Ser Trp Cys Arg Ala Ala Thr Leu Gly His Arg
3025 3030 3035 3040
Ala Val Pro Ala Ala Ser Tyr Gly Arg Ile Tyr Ala Gly Gly Gly Thr
 3045 3050 3055
Gly Ser Leu Ser Gln Pro Ala Ser Arg Tyr Ser Ser Arg Glu Gln Leu
 3060 3065 3070
Asp Leu Leu Leu Arg Arg Gln Leu Ser Arg Glu Arg Leu Glu Glu Ala
 3075 3080 3085
Pro Ala Pro Val Leu Arg Pro Leu Ser Arg Pro Gly Ser Gln Glu Cys
 3090 3095 3100
Met Asp Ala Ala Pro Gly Arg Leu Glu Pro Lys Asp Arg Gly Ser Thr
3105 3110 3115 3120
Leu Pro Arg Arg Gln Pro Pro Arg Asp Tyr Pro Gly Ala Met Ala Gly
 3125 3130 3135
Arg Phe Gly Ser Arg Asp Ala Leu Asp Leu Gly Ala Pro Arg Glu Trp
 3140 3145 3150
Leu Ser Thr Leu Pro Pro Pro Arg Arg Thr Arg Asp Leu Asp Pro Gln
 3155 3160 3165
Pro Pro Pro Leu Pro Leu Ser Pro Gln Arg Gln Leu Ser Arg Asp Pro
 3170 3175 3180
Leu Leu Pro Ser Arg Pro Leu Asp Ser Leu Ser Arg Ser Ser Asn Ser
3185 3190 3195 3200
Arg Glu Gln Leu Asp Gln Val Pro Ser Arg His Pro Ser Arg Glu Ala
 3205 3210 3215
Leu Gly Pro Leu Pro Gln Leu Leu Arg Ala Arg Glu Asp Ser Val Ser
 3220 3225 3230
Gly Pro Ser His Gly Pro Ser Thr Glu Gln Leu Asp Ile Leu Ser Ser
 3235 3240 3245
Ile Leu Ala Ser Phe Asn Ser Ser Ala Leu Ser Ser Val Gln Ser Ser

3250

3255

3260

Ser Thr Pro Leu Gly Pro His Thr Thr Ala Thr Pro Ser Ala Thr Ala
3265 3270 3275 3280

Ser Val Leu Gly Pro Ser Thr Pro Arg Ser Ala Thr Ser His Ser Ile
3285 3290 3295

Ser Glu Leu Ser Pro Asp Ser Glu Val Pro Arg Ser Glu Gly His Ser
3300 3305 3310

<210> 68

<211> 3301

<212> PRT

<213> Mus musculus

<400> 68

Met Ala Arg Arg Pro Leu Trp Trp Gly Leu Pro Gly Pro Ser Thr Pro
1 5 10 15

Val Leu Leu Leu Leu Leu Ser Leu Phe Pro Phe Ser Arg Glu Glu
20 25 30

Leu Gly Gly Gly Gly Asp Gln Asp Trp Asp Pro Gly Val Ala Thr Thr
35 40 45

Thr Gly Pro Arg Ala Gln Ile Gly Ser Gly Ala Val Ala Leu Cys Pro
50 55 60

Glu Ser Pro Gly Val Trp Glu Asp Gly Asp Pro Gly Leu Gly Val Arg
65 70 75 80

Glu Pro Val Phe Met Arg Leu Arg Val Gly Arg Gln Asn Ala Arg Asn
85 90 95

Gly Arg Gly Ala Pro Glu Gln Pro Asn Ala Glu Val Val Val Gln Ala
100 105 110

Leu Gly Ser Arg Glu Gln Glu Ala Gly Gln Gly Pro Gly Tyr Leu Leu
115 120 125

Cys Trp His Pro Glu Ile Ser Ser Cys Gly Arg Thr Gly Pro Leu Arg
130 135 140

Arg Gly Ser Leu Pro Leu Asp Ala Leu Ser Pro Gly Asp Ser Asp Leu
145 150 155 160

Arg Asn Ser Ser Pro His Pro Ser Glu Leu Leu Ala Gln Pro Asp Gly
165 170 175

Ser Arg Pro Val Ala Phe Gln Arg Asn Ala Arg Arg Ser Ile Arg Lys
180 185 190

10030054 300000

Met Glu Ser Tyr Glu Leu Val Val Glu Ala Ser Asp Gln Gly Gln Glu
500 505 510

Pro Gly Pro Arg Ser Ala Thr Val Arg Val His Ile Thr Val Leu Asp
515 520 525

Glu Asn Asp Asn Ala Pro Gln Phe Gly Glu Lys Arg Tyr Val Ala Gln
530 535 540

Val Arg Glu Asp Val Arg Pro His Thr Val Val Leu Arg Val Thr Ala
545 550 555 560

Thr Asp Lys Asp Lys Asp Ala Asn Gly Leu Val His Tyr Asn Ile Ile
565 570 575

Ser Gly Asn Ser Arg Gly His Phe Ala Ile Asp Ser Leu Thr Gly Glu
580 585 590

Ile Gln Val Met Ala Pro Leu Asp Phe Glu Ala Glu Arg Glu Tyr Ala
595 600 605

Leu Arg Ile Arg Ala Gln Asp Ala Gly Arg Pro Pro Leu Ser Asn Asn
610 615 620

Thr Gly Leu Ala Ser Ile Gln Val Val Asp Ile Asn Asp His Ala Pro
625 630 635 640

Ile Phe Val Ser Thr Pro Phe Gln Val Ser Val Leu Glu Asn Ala Pro
645 650 655

Leu Gly His Ser Val Ile His Ile Gln Ala Val Asp Ala Asp His Gly
660 665 670

Glu Asn Ser Arg Leu Glu Tyr Ser Leu Thr Gly Val Ala Ser Asp Thr
675 680 685

Pro Phe Val Ile Asn Ser Ala Thr Gly Trp Val Ser Val Ser Gly Pro
690 695 700

Leu Asp Arg Glu Ser Val Glu His Tyr Phe Phe Gly Val Glu Ala Arg
705 710 715 720

Asp His Gly Ser Pro Pro Leu Ser Ala Ser Ala Ser Val Thr Val Thr
725 730 735

Val Leu Asp Val Asn Asp Asn Arg Pro Glu Phe Thr Met Lys Glu Tyr
740 745 750

His Leu Arg Leu Asn Glu Asp Ala Ala Val Gly Thr Ser Val Val Ser
755 760 765

Val Thr Ala Val Asp Arg Asp Ala Asn Ser Ala Ile Ser Tyr Gln Ile
770 775 780

Thr Gly Gly Asn Thr Arg Asn Arg Phe Ala Ile Ser Thr Gln Gly Gly
785 790 795 800

CONFIDENTIAL

Val	Gly	Leu	Val	Thr	Leu	Ala	Leu	Pro	Leu	Asp	Tyr	Lys	Gln	Glu	Arg
805								810				815			
Tyr	Phe	Lys	Leu	Val	Leu	Thr	Ala	Ser	Asp	Arg	Ala	Leu	His	Asp	His
820								825				830			
Cys	Tyr	Val	His	Ile	Asn	Ile	Thr	Asp	Ala	Asn	Thr	His	Arg	Pro	Val
835								840				845			
Phe	Gln	Ser	Ala	His	Tyr	Ser	Val	Ser	Met	Asn	Glu	Asn	Arg	Pro	Val
850								855				860			
Gly	Ser	Thr	Val	Val	Val	Ile	Ser	Ala	Ser	Asp	Asp	Asp	Val	Gly	Glu
865								870				875			
Asn	Ala	Arg	Ile	Thr	Tyr	Leu	Leu	Glu	Asp	Asn	Leu	Pro	Gln	Phe	Arg
				885								890			
Ile	Asp	Ala	Asp	Ser	Gly	Ala	Ile	Thr	Leu	Gln	Ala	Pro	Leu	Asp	Tyr
				900								905			
Glu	Asp	Gln	Val	Thr	Tyr	Thr	Leu	Ala	Ile	Thr	Ala	Arg	Asp	Asn	Gly
				915								920			
Ile	Pro	Gln	Lys	Ala	Asp	Thr	Thr	Tyr	Val	Glu	Val	Met	Val	Asn	Asp
930								935				940			
Val	Asn	Asp	Asn	Ala	Pro	Gln	Phe	Val	Ala	Ser	His	Tyr	Thr	Gly	Leu
945								950				955			
Val	Ser	Glu	Asp	Ala	Pro	Pro	Phe	Thr	Ser	Val	Leu	Gln	Ile	Ser	Ala
				965								970			
Thr	Asp	Arg	Asp	Ala	His	Ala	Asn	Gly	Arg	Val	Gln	Tyr	Thr	Phe	Gln
				980								985			
Asn	Gly	Glu	Asp	Gly	Asp	Gly	Asp	Phe	Thr	Ile	Glu	Pro	Thr	Ser	Gly
995								1000				1005			
Ile	Val	Arg	Thr	Val	Arg	Arg	Leu	Asp	Arg	Glu	Ala	Val	Pro	Val	Tyr
1010								1015				1020			
Glu	Leu	Thr	Ala	Tyr	Ala	Val	Asp	Arg	Gly	Val	Pro	Pro	Leu	Arg	Thr
1025								1030				1035			
Pro	Val	Ser	Ile	Gln	Val	Thr	Val	Gln	Asp	Val	Asn	Asp	Asn	Ala	Pro
				1045								1050			
Val	Phe	Pro	Ala	Glu	Glu	Phe	Glu	Val	Arg	Val	Lys	Glu	Asn	Ser	Ile
1060								1065				1070			
Val	Gly	Ser	Val	Val	Ala	Gln	Ile	Thr	Ala	Val	Asp	Pro	Asp	Asp	Gly
1075								1080				1085			
Pro	Asn	Ala	His	Ile	Met	Tyr	Gln	Ile	Val	Glu	Gly	Asn	Ile	Pro	Glu
1090								1095				1100			

Leu Phe Gln Met Asp Ile Phe Ser Gly Glu Leu Thr Ala Leu Ile Asp
 1105 1110 1115 1120
 Leu Asp Tyr Glu Ala Arg Gln Glu Tyr Val Ile Val Val Gln Ala Thr
 1125 1130 1135
 Ser Ala Pro Leu Val Ser Arg Ala Thr Val His Val Arg Leu Val Asp
 1140 1145 1150
 Gln Asn Asp Asn Ser Pro Val Leu Asn Asn Phe Gln Ile Leu Phe Asn
 1155 1160 1165
 Asn Tyr Val Ser Asn Arg Ser Asp Thr Phe Pro Ser Gly Ile Ile Gly
 1170 1175 1180
 Arg Ile Pro Ala Tyr Asp Pro Asp Val Ser Asp His Leu Phe Tyr Ser
 1185 1190 1195 1200
 Phe Glu Arg Gly Asn Glu Leu Gln Leu Leu Val Val Asn Arg Thr Ser
 1205 1210 1215
 Gly Glu Leu Arg Leu Ser Arg Lys Leu Asp Asn Asn Arg Pro Leu Val
 1220 1225 1230
 Ala Ser Met Leu Val Thr Val Thr Asp Gly Leu His Ser Val Thr Ala
 1235 1240 1245
 Gln Cys Val Leu Arg Val Val Ile Ile Thr Glu Glu Leu Leu Ala Asn
 1250 1255 1260
 Ser Leu Thr Val Arg Leu Glu Asn Met Trp Gln Glu Arg Phe Leu Ser
 1265 1270 1275 1280
 Pro Leu Leu Gly His Phe Leu Glu Gly Val Ala Ala Val Leu Ala Thr
 1285 1290 1295
 Pro Thr Glu Asp Val Phe Ile Phe Asn Ile Gln Asn Asp Thr Asp Val
 1300 1305 1310
 Gly Gly Thr Val Leu Asn Val Ser Phe Ser Ala Leu Ala Pro Arg Gly
 1315 1320 1325
 Ala Gly Ala Gly Ala Ala Gly Pro Trp Phe Ser Ser Glu Glu Leu Gln
 1330 1335 1340
 Glu Gln Leu Tyr Val Arg Arg Ala Ala Leu Ala Ala Arg Ser Leu Leu
 1345 1350 1355 1360
 Asp Val Leu Pro Phe Asp Asp Asn Val Cys Leu Arg Glu Pro Cys Glu
 1365 1370 1375
 Asn Tyr Met Lys Cys Val Ser Val Leu Arg Phe Asp Ser Ser Ala Pro
 1380 1385 1390
 Phe Leu Ala Ser Thr Ser Thr Leu Phe Arg Pro Ile Gln Pro Ile Ala
 1395 1400 1405

Gly Leu Arg Cys Arg Cys Pro Pro Gly Phe Thr Gly Asp Phe Cys Glu
 1410 1415 1420
 Thr Glu Leu Asp Leu Cys Tyr Ser Asn Pro Cys Arg Asn Gly Gly Ala
 1425 1430 1435 1440
 Cys Ala Arg Arg Glu Gly Gly Tyr Thr Cys Val Cys Arg Pro Arg Phe
 1445 1450 1455
 Thr Asp Cys Glu Leu Asp Thr Glu Ala Glv Arg Cys Val Pro Gly Val
 1460 1465 1470
 Cys Arg Asn Gly Gly Thr Cys Thr Asn Ala Pro Asn Gly Gly Phe Arg
 1475 1480 1485
 Cys Gln Cys Pro Ala Gly Gly Ala Phe Glu Gly Pro Arg Cys Glu Val
 1490 1495 1500
 Ala Ala Arg Ser Phe Pro Pro Ser Ser Phe Val Met Phe Arg Gly Leu
 1505 1510 1515 1520
 Arg Gln Arg Phe His Leu Thr Leu Ser Leu Ser Phe Ala Thr Val Gln
 1525 1530 1535
 Pro Ser Gly Leu Leu Phe Tyr Asn Gly Arg Leu Asn Glu Lys His Asp
 1540 1545 1550
 Phe Leu Ala Leu Glu Leu Val Ala Gly Gln Val Arg Leu Thr Tyr Ser
 1555 1560 1565
 Thr Gly Glu Ser Asn Thr Val Val Ser Pro Thr Val Pro Gly Gly Leu
 1570 1575 1580
 Ser Asp Gly Gln Trp His Thr Val His Leu Arg Tyr Tyr Asn Lys Pro
 1585 1590 1595 1600
 Arg Thr Asp Ala Leu Gly Gly Ala Gln Gly Pro Ser Lys Asp Lys Val
 1605 1610 1615
 Ala Val Leu Ser Val Asp Asp Cys Asn Val Ala Val Ala Leu Gln Phe
 1620 1625 1630
 Gly Ala Glu Ile Gly Asn Tyr Ser Cys Ala Ala Ala Gly Val Gln Thr
 1635 1640 1645
 Ser Ser Lys Lys Ser Leu Asp Leu Thr Gly Pro Leu Leu Leu Gly Gly
 1650 1655 1660
 Val Pro Asn Leu Pro Glu Asn Phe Pro Val Ser His Lys Asp Phe Ile
 1665 1670 1675 1680
 Gly Cys Met Arg Asp Leu His Ile Asp Gly Arg Arg Met Asp Met Ala
 1685 1690 1695
 Ala Phe Val Ala Asn Asn Gly Thr Met Ala Gly Cys Gln Ala Lys Ser
 1700 1705 1710

His Phe Cys Ala Ser Gly Pro Cys Lys Asn Asn Gly Phe Cys Ser Glu
 1715 1720 1725
 Arg Trp Gly Gly Phe Ser Cys Asp Cys Pro Val Gly Phe Gly Gly Lys
 1730 1735 1740
 Asp Cys Arg Leu Thr Met Ala His Pro Tyr His Phe Gln Gly Asn Gly
 1745 1750 1755 1760
 Thr Leu Ser Trp Asp Phe Gly Asn Asp Met Ala Val Ser Val Pro Trp
 1765 1770 1775
 Tyr Leu Gly Leu Ser Phe Arg Thr Arg Ala Thr Lys Gly Ile Leu Met
 1780 1785 1790
 Gln Val Gln Leu Gly Pro His Ser Val Leu Leu Cys Lys Leu Asp Arg
 1795 1800 1805
 Gly Leu Leu Ser Val Thr Leu Asn Arg Ala Ser Gly His Thr Val His
 1810 1815 1820
 Leu Leu Leu Asp Gln Met Thr Val Ser Asp Gly Arg Trp His Asp Leu
 1825 1830 1835 1840
 Arg Leu Glu Leu Gln Glu Glu Pro Gly Gly Arg Arg Gly His His Ile
 1845 1850 1855
 Phe Met Val Ser Leu Asp Phe Thr Leu Phe Gln Asp Thr Met Ala Met
 1860 1865 1870
 Gly Gly Glu Leu Gln Gly Leu Lys Val Lys Gln Leu His Val Gly Gly
 1875 1880 1885
 Leu Pro Pro Ser Ser Lys Glu Gly His Gln Gly Leu Val Gly Cys
 1890 1895 1900
 Ile Gln Gly Val Trp Ile Gly Phe Thr Pro Phe Gly Ser Ser Ala Leu
 1905 1910 1915 1920
 Leu Pro Pro Ser His Arg Val Asn Val Glu Pro Gly Cys Thr Val Thr
 1925 1930 1935
 Asn Pro Cys Ala Ser Gly Pro Cys Pro Pro His Ala Asp Cys Lys Asp
 1940 1945 1950
 Leu Trp Gln Thr Phe Ser Cys Thr Cys Arg Pro Gly Tyr Tyr Gly Pro
 1955 1960 1965
 Gly Cys Val Asp Ala Cys Leu Leu Asn Pro Cys Gln Asn Gln Gly Ser
 1970 1975 1980
 Cys Arg His Leu Gln Gly Ala Pro His Gly Tyr Thr Cys Asp Cys Val
 1985 1990 1995 2000
 Ser Gly Tyr Phe Gly Gln His Cys Glu His Arg Val Asp Gln Gln Cys
 2005 2010 2015

Pro Arg Gly Trp Trp Gly Ser Pro Thr Cys Gly Pro Cys Asn Cys Asp
2020 2025 2030

Val His Lys Gly Phe Asp Pro Asn Cys Asn Lys Thr Asn Gly Gln Cys
2035 2040 2045

His Cys Lys Glu Phe His Tyr Arg Pro Arg Gly Ser Asp Ser Cys Leu
2050 2055 2060

Pro Cys Asp Cys Trp Pro Val Gly Ser Thr Ser Arg Ser Cys Ala Pro
2065 2070 2075 2080

His Ser Gly Gln Cys Pro Cys Arg Pro Gly Ala Leu Gly Arg Gln Cys
2085 2090 2095

Asn Ser Cys Asp Ser Pro Phe Ala Glu Val Thr Ala Ser Gly Cys Arg
2100 2105 2110

Val Leu Tyr Asp Ala Cys Pro Lys Ser Leu Arg Ser Gly Val Trp Trp
2115 2120 2125

Pro Gln Thr Lys Phe Gly Val Leu Ala Thr Val Pro Cys Pro Arg Gly
2130 2135 2140

Ala Leu Gly Ala Ala Val Arg Leu Cys Asp Glu Asp Gln Gly Trp Leu
2145 2150 2155 2160

Glu Pro Asp Leu Phe Asn Cys Thr Ser Pro Ala Phe Arg Glu Leu Ser
2165 2170 2175

Leu Leu Leu Asp Gly Leu Glu Leu Asn Lys Thr Ala Leu Asp Thr Val
2180 2185 2190

Glu Ala Lys Lys Leu Ala Gln Arg Leu Arg Glu Val Thr Gly Gln Thr
2195 2200 2205

Asp His Tyr Phe Ser Gln Asp Val Arg Val Thr Ala Arg Leu Leu Ala
2210 2215 2220

Tyr Leu Leu Ala Phe Glu Ser His Gln Gln Gly Phe Gly Leu Thr Ala
2225 2230 2235 2240

Thr Gln Asp Ala His Phe Asn Glu Asn Leu Leu Trp Ala Gly Ser Ala
2245 2250 2255

Leu Leu Ala Pro Glu Thr Gly His Leu Trp Ala Ala Leu Gly Gln Arg
2260 2265 2270

Ala Pro Gly Gly Ser Pro Gly Ser Ala Gly Leu Val Gln His Leu Glu
2275 2280 2285

Glu Tyr Ala Ala Thr Leu Ala Arg Asn Met Glu Leu Thr Tyr Leu Asn
2290 2295 2300

Pro Val Gly Leu Val Thr Pro Asn Ile Met Leu Ser Ile Asp Arg Met
2305 2310 2315 2320

[illegible]

ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED

Ala His Pro Lys Asp Val Asp Gly Asn Asp Leu Leu Ser Tyr Trp Pro
 2930 2935 2940
 Ala Leu Gly Glu Cys Glu Ala Ala Pro Cys Ala Leu Gln Ala Trp Gly
 2945 2950 2955 2960
 Ser Glu Arg Arg Leu Gly Leu Asp Ser Asn Lys Asp Ala Ala Asn Asn
 2965 2970 2975
 Asn Gln Pro Glu Leu Ala Leu Thr Ser Gly Asp Glu Thr Ser Leu Gly
 2980 2985 2990
 Arg Ala Gln Arg Gln Arg Lys Gly Ile Leu Lys Asn Arg Leu Gln Tyr
 2995 3000 3005
 Pro Leu Val Pro Gln Ser Arg Gly Thr Pro Glu Leu Ser Trp Cys Arg
 3010 3015 3020
 Ala Ala Thr Leu Gly His Arg Ala Val Pro Ala Ala Ser Tyr Gly Arg
 3025 3030 3035 3040
 Ile Tyr Ala Gly Gly Gly Thr Gly Ser Leu Ser Gln Pro Ala Ser Arg
 3045 3050 3055
 Tyr Ser Ser Arg Glu Gln Leu Asp Leu Leu Leu Arg Arg Gln Leu Ser
 3060 3065 3070
 Lys Glu Arg Leu Glu Glu Val Pro Val Pro Ala Pro Val Leu His Pro
 3075 3080 3085
 Leu Ser Arg Pro Gly Ser Gln Glu Arg Leu Asp Thr Ala Pro Ala Arg
 3090 3095 3100
 Leu Glu Ala Arg Asp Arg Gly Ser Thr Leu Pro Arg Arg Gln Pro Pro
 3105 3110 3115 3120
 Arg Asp Tyr Pro Gly Thr Met Ala Gly Arg Phe Gly Ser Arg Asp Ala
 3125 3130 3135
 Leu Asp Leu Gly Ala Pro Arg Glu Trp Leu Ser Thr Leu Pro Pro Pro
 3140 3145 3150
 Arg Arg Asn Arg Asp Leu Asp Pro Gln His Pro Pro Leu Pro Leu Ser
 3155 3160 3165
 Pro Gln Arg Gln Leu Ser Arg Asp Pro Leu Leu Pro Ser Arg Pro Leu
 3170 3175 3180
 Asp Ser Leu Ser Arg Ile Ser Asn Ser Arg Glu Gly Leu Asp Gln Val
 3185 3190 3195 3200
 Pro Ser Arg His Pro Ser Arg Glu Ala Leu Gly Pro Ala Pro Gln Leu
 3205 3210 3215
 Leu Arg Ala Arg Glu Asp Pro Ala Ser Gly Pro Ser His Gly Pro Ser
 3220 3225 3230

Thr Glu Gln Leu Asp Ile Leu Ser Ser Ile Leu Ala Ser Phe Asn Ser
3235 3240 3245

Ser Ala Leu Ser Ser Val Gln Ser Ser Ser Thr Pro Ser Gly Pro His
3250 3255 3260

Thr Thr Ala Thr Ala Ser Ala Leu Gly Pro Ser Thr Pro Arg Ser Ala
3265 3270 3275 3280

Thr Ser His Ser Ile Ser Glu Leu Ser Pro Asp Ser Glu Val Pro Arg
3285 3290 3295

Ser Glu Gly His Ser
3300

<210> 69

<211> 3313

<212> PRT

<213> Rattus norvegicus

<400> 69

Met Ala Arg Arg Pro Leu Trp Trp Gly Leu Pro Gly Pro Ser Thr Pro
1 5 10 15

Leu Leu Leu Leu Leu Phe Ser Leu Phe Pro Ser Ser Arg Glu Glu
20 25 30

Met Gly Gly Gly Gly Asp Gln Gly Trp Asp Pro Gly Val Ala Thr Ala
35 40 45

Thr Gly Pro Arg Ala Gln Ile Gly Ser Gly Ala Val Ala Leu Cys Pro
50 55 60

Glu Ser Pro Gly Val Trp Glu Asp Gly Asp Pro Gly Leu Gly Val Arg
65 70 75 80

Glu Pro Val Phe Met Lys Leu Arg Val Gly Arg Gln Asn Ala Arg Asn
85 90 95

Gly Arg Gly Ala Pro Glu Gln Pro Asn Arg Glu Pro Val Val Gln Ala
100 105 110

Leu Gly Ser Arg Glu Gln Glu Ala Gly Gln Gly Ser Gly Tyr Leu Leu
115 120 125

Cys Trp His Pro Glu Ile Ser Ser Cys Gly Arg Thr Gly His Leu Arg
130 135 140

Arg Gly Ser Leu Pro Leu Asp Ala Leu Ser Pro Gly Asp Ser Asp Leu
145 150 155 160

Arg Asn Ser Ser Pro His Pro Ser Glu Leu Leu Ala Gln Pro Asp Ser
165 170 175

Pro Arg Pro Val Ala Phe Gln Arg Asn Gly Arg Arg Ser Ile Arg Lys
180 185 190

Arg Val Glu Thr Phe Arg Cys Cys Gly Lys Leu Trp Glu Pro Gly His
195 200 205

Lys Gly Gln Gly Glu Arg Ser Ala Thr Ser Thr Val Asp Arg Gly Pro
210 215 220

Leu Arg Arg Asp Cys Leu Pro Gly Ser Leu Gly Ser Gly Leu Gly Glu
225 230 235 240

Asp Ser Ala Pro Arg Ala Val Arg Thr Ala Pro Ala Pro Gly Ser Ala
245 250 255

Pro His Glu Ser Arg Thr Ala Pro Glu Arg Met Arg Ser Arg Gly Leu
260 265 270

Phe Arg Arg Gly Phe Leu Phe Glu Arg Pro Gly Pro Arg Pro Pro Gly
275 280 285

Phe Pro Thr Gly Ala Glu Ala Lys Arg Ile Leu Ser Thr Asn Gln Ala
290 295 300

Arg Ser Arg Arg Ala Ala Asn Arg His Pro Gln Phe Pro Gln Tyr Asn
305 310 315 320

Tyr Gln Thr Leu Val Pro Glu Asn Glu Ala Ala Gly Thr Ala Val Leu
325 330 335

Arg Val Val Ala Gln Asp Pro Asp Pro Gly Glu Ala Gly Arg Leu Val
340 345 350

Tyr Ser Leu Ala Ala Leu Met Asn Ser Arg Ser Leu Glu Leu Phe Ser
355 360 365

Ile Asp Pro Gln Ser Gly Leu Ile Arg Thr Ala Ala Ala Leu Asp Arg
370 375 380

Glu Ser Met Glu Arg His Tyr Leu Arg Val Thr Ala Gln Asp His Gly
385 390 395 400

Ser Pro Arg Leu Ser Ala Thr Thr Met Val Ala Val Thr Val Ala Asp
405 410 415

Arg Asn Asp His Ala Pro Val Phe Glu Gln Ala Gln Tyr Arg Glu Thr
420 425 430

Leu Arg Glu Asn Val Glu Glu Gly Tyr Pro Ile Leu Gln Leu Arg Ala
435 440 445

Thr Asp Gly Asp Ala Pro Pro Asn Ala Asn Leu Arg Tyr Arg Phe Val
450 455 460

Gly Ser Pro Ala Ala Arg Thr Ala Ala Ala Ala Ala Phe Glu Ile Asp
465 470 475 480

Pro Arg Ser Gly Leu Ile Ser Thr Ser Gly Arg Val Asp Arg Glu His
485 490 495

Met Glu Ser Tyr Glu Leu Val Val Glu Ala Ser Asp Gln Gly Gln Glu
500 505 510

Pro Gly Pro Arg Ser Ala Thr Val Arg Val His Ile Thr Val Leu Asp
515 520 525

Glu Asn Asp Asn Ala Pro Gln Phe Ser Glu Lys Arg Tyr Val Ala Gln
530 535 540

Val Arg Glu Asp Val Arg Pro His Thr Val Val Leu Arg Val Thr Ala
545 550 555 560

Thr Asp Lys Asp Lys Asp Ala Asn Gly Leu Val His Tyr Asn Ile Ile
565 570 575

Ser Gly Asn Ser Arg Gly His Phe Ala Ile Asp Ser Leu Thr Gly Glu
580 585 590

Ile Gln Val Met Ala Pro Leu Asp Phe Glu Ala Glu Arg Glu Tyr Ala
595 600 605

Leu Arg Ile Arg Ala Gln Asp Ala Gly Arg Pro Pro Leu Ser Asn Asn
610 615 620

Thr Gly Leu Ala Ser Ile Gln Val Val Asp Ile Asn Asp His Ser Pro
625 630 635 640

Ile Phe Val Ser Thr Pro Phe Gln Val Ser Val Leu Glu Asn Ala Pro
645 650 655

Leu Gly His Ser Val Ile His Ile Gln Ala Val Asp Ala Asp His Gly
660 665 670

Glu Asn Ser Arg Leu Glu Tyr Ser Leu Thr Gly Val Ala Ser Asp Thr
675 680 685

Pro Phe Val Ile Asn Ser Ala Thr Gly Trp Val Ser Val Ser Gly Pro
690 695 700

Leu Asp Arg Glu Ser Val Glu His Tyr Phe Phe Gly Val Glu Ala Arg
705 710 715 720

Asp His Gly Ser Pro Pro Leu Ser Ala Ser Ala Ser Val Thr Val Thr
725 730 735

Val Leu Asp Val Asn Asp Asn Arg Pro Glu Phe Thr Met Lys Glu Tyr
740 745 750

His Leu Arg Leu Asn Glu Asp Ala Ala Val Gly Thr Ser Val Val Ser
755 760 765

Val Thr Ala Val Asp Arg Asp Ala Asn Ser Ala Ile Ser Tyr Gln Ile
770 775 780

Thr Gly Gly Asn Thr Arg Asn Arg Phe Ala Ile Ser Thr Gln Gly Gly
785 790 795 800

[Faint, illegible text from bleed-through]

Met Gly Leu Val Thr Leu Ala Leu Pro Leu Asp Tyr Lys Gln Glu Arg
805 810 815

Tyr Phe Lys Leu Val Leu Thr Ala Ser Asp Arg Ala Leu His Asp His
820 825 830

Cys Tyr Val His Ile Asn Ile Thr Asp Ala Asn Thr His Arg Pro Val
835 840 845

Phe Gln Ser Ala His Tyr Ser Val Ser Met Asn Glu Asp Arg Pro Val
850 855 860

Gly Ser Thr Val Val Val Ile Ser Ala Ser Asp Asp Asp Val Gly Glu
865 870 875 880

Asn Ala Arg Ile Thr Tyr Leu Leu Glu Asp Asn Leu Pro Gln Phe Arg
885 890 895

Ile Asp Ala Asp Ser Gly Ala Ile Thr Leu Gln Ala Pro Leu Asp Tyr
900 905 910

Glu Asp Gln Val Thr Tyr Thr Leu Ala Ile Thr Ala Arg Asp Asn Gly
915 920 925

Ile Pro Gln Lys Ala Asp Thr Thr Tyr Val Glu Val Met Val Asn Asp
930 935 940

Val Asn Asp Asn Ala Pro Gln Phe Val Ala Ser His Tyr Thr Gly Leu
945 950 955 960

Val Ser Glu Asp Ala Pro Pro Phe Thr Ser Val Leu Gln Ile Ser Ala
965 970 975

Thr Asp Arg Asp Ala His Ala Asn Gly Arg Val Gln Tyr Thr Phe Gln
980 985 990

Asn Gly Glu Asp Gly Asp Gly Asp Phe Thr Ile Glu Pro Thr Ser Gly
995 1000 1005

Ile Val Arg Thr Val Arg Arg Leu Asp Arg Glu Ala Val Pro Val Tyr
1010 1015 1020

Glu Leu Thr Ala Tyr Ala Val Asp Arg Gly Val Pro Pro Leu Arg Thr
1025 1030 1035 1040

Pro Val Ser Ile Gln Val Thr Val Gln Asp Val Asn Asp Asn Ala Pro
1045 1050 1055

Val Phe Pro Ala Glu Glu Phe Glu Val Arg Val Lys Glu Asn Ser Ile
1060 1065 1070

Val Gly Ser Val Val Ala Gln Ile Thr Ala Val Asp Pro Asp Asp Gly
1075 1080 1085

Pro Asn Ala His Ile Met Tyr Gln Ile Val Glu Gly Asn Ile Pro Glu
1090 1095 1100

Leu Phe Gln Met Asp Ile Phe Ser Gly Glu Leu Thr Ala Leu Ile Asp
 1105 1110 1115 1120
 Leu Asp Tyr Glu Ala Arg Gln Glu Tyr Val Ile Val Val Gln Ala Thr
 1125 1130 1135
 Ser Ala Pro Leu Val Ser Arg Ala Thr Val His Val Arg Leu Val Asp
 1140 1145 1150
 Gln Asn Asp Asn Ser Pro Val Leu Asn Asn Phe Gln Ile Leu Phe Asn
 1155 1160 1165
 Asn Tyr Val Ser Asn Arg Ser Asp Thr Phe Pro Ser Gly Ile Ile Gly
 1170 1175 1180
 Arg Ile Pro Ala Tyr Asp Pro Asp Val Ser Asp His Leu Phe Tyr Ser
 1185 1190 1195 1200
 Phe Glu Arg Gly Asn Glu Leu Gln Leu Leu Val Val Asn Gln Thr Ser
 1205 1210 1215
 Gly Glu Leu Arg Leu Ser Arg Lys Leu Asp Asn Asn Arg Pro Leu Val
 1220 1225 1230
 Ala Ser Met Leu Val Thr Val Thr Asp Gly Leu His Ser Val Thr Ala
 1235 1240 1245
 Gln Cys Val Leu Arg Val Val Ile Ile Thr Glu Glu Leu Leu Ala Asn
 1250 1255 1260
 Ser Leu Thr Val Arg Leu Glu Asn Met Trp Gln Glu Arg Phe Leu Ser
 1265 1270 1275 1280
 Pro Leu Leu Gly His Phe Leu Glu Gly Val Ala Ala Val Leu Ala Thr
 1285 1290 1295
 Pro Thr Glu Asp Val Phe Ile Phe Asn Ile Gln Asn Asp Thr Asp Val
 1300 1305 1310
 Gly Gly Thr Val Leu Asn Val Ser Phe Ser Ala Leu Ala Pro Arg Gly
 1315 1320 1325
 Ala Gly Ala Gly Ala Ala Gly Pro Trp Phe Ser Ser Glu Glu Leu Gln
 1330 1335 1340
 Glu Gln Leu Tyr Val Arg Arg Ala Ala Leu Ala Ala Arg Ser Leu Leu
 1345 1350 1355 1360
 Asp Val Leu Pro Phe Asp Asp Asn Val Cys Leu Arg Glu Pro Cys Glu
 1365 1370 1375
 Asn Tyr Met Lys Cys Val Ser Val Leu Arg Phe Asp Ser Ser Ala Pro
 1380 1385 1390
 Phe Leu Ala Ser Ala Ser Thr Leu Phe Arg Pro Ile Gln Pro Ile Ala
 1395 1400 1405

Gly Leu Arg Cys Arg Cys Pro Pro Gly Phe Thr Gly Asp Phe Cys Glu
1410 1415 1420

Thr Glu Leu Asp Leu Cys Tyr Ser Asn Pro Cys Arg Asn Gly Gly Ala
1425 1430 1435 1440

Cys Ala Arg Arg Glu Gly Gly Tyr Thr Cys Val Cys Arg Pro Arg Phe
1445 1450 1455

Thr Gly Glu Asp Cys Glu Leu Asp Thr Glu Ala Gly Arg Cys Val Pro
1460 1465 1470

Gly Val Cys Arg Asn Gly Gly Thr Cys Thr Asn Ala Pro Asn Gly Gly
1475 1480 1485

Phe Arg Cys Gln Cys Pro Ala Gly Gly Ala Phe Glu Gly Pro Arg Cys
1490 1495 1500

Glu Val Ala Ala Arg Ser Phe Pro Pro Ser Ser Phe Val Met Phe Arg
1505 1510 1515 1520

Gly Leu Arg Gln Arg Phe His Leu Thr Leu Ser Leu Ser Phe Ala Thr
1525 1530 1535

Val Gln Pro Ser Gly Leu Leu Phe Tyr Asn Gly Arg Leu Asn Glu Lys
1540 1545 1550

His Asp Phe Leu Ala Leu Glu Leu Val Ala Gly Gln Val Arg Leu Thr
1555 1560 1565

Tyr Ser Thr Gly Glu Ser Ser Thr Val Val Ser Pro Thr Val Pro Gly
1570 1575 1580

Gly Leu Ser Asp Gly Gln Trp His Thr Val His Leu Arg Tyr Tyr Asn
1585 1590 1595 1600

Lys Pro Arg Thr Asp Ala Leu Gly Gly Ala Gln Gly Pro Ser Lys Asp
1605 1610 1615

Lys Val Ala Val Leu Ser Val Asp Asp Cys Asn Val Ala Val Ala Leu
1620 1625 1630

Arg Phe Gly Ala Glu Ile Gly Asn Tyr Ser Cys Ala Ala Ala Gly Val
1635 1640 1645

Gln Thr Ser Ser Lys Lys Ser Leu Asp Leu Thr Gly Pro Leu Leu Leu
1650 1655 1660

Gly Gly Val Pro Asn Leu Pro Glu Asn Phe Pro Val Ser Arg Lys Asp
1665 1670 1675 1680

Phe Ile Gly Cys Met Arg Asp Leu His Ile Asp Gly Arg Arg Val Asp
1685 1690 1695

Met Ala Ala Phe Val Ala Asn Asn Gly Thr Thr Ala Gly Cys Gln Ala
1700 1705 1710

Gln Cys Pro Arg Gly Trp Trp Gly Ser Pro Thr Cys Gly Pro Cys Asn
2020 2025 2030

Cys Asp Val His Lys Gly Phe Asp Pro Asn Cys Asn Lys Thr Ser Gly
2035 2040 2045

Gln Cys His Cys Lys Glu Phe His Tyr Arg Pro Arg Gly Ser Asp Ser
2050 2055 2060

Cys Leu Pro Cys Asp Cys Tyr Pro Val Gly Ser Thr Ser Arg Ser Cys
2065 2070 2075 2080

Ala Pro His Ser Gly Gln Cys Pro Cys Arg Pro Gly Ala Leu Gly Arg
2085 2090 2095

Gln Cys Asn Ser Cys Asp Ser Pro Phe Ala Glu Val Thr Ala Ser Gly
2100 2105 2110

Cys Arg Val Leu Tyr Asp Ala Cys Pro Lys Ser Leu Arg Ser Gly Val
2115 2120 2125

Trp Trp Pro Gln Thr Lys Phe Gly Val Leu Ala Thr Val Pro Cys Pro
2130 2135 2140

Arg Gly Ala Leu Gly Leu Arg Gly Thr Gly Ala Ala Val Arg Leu Cys
2145 2150 2155 2160

Asp Glu Asp His Gly Trp Leu Glu Pro Asp Phe Phe Asn Cys Thr Ser
2165 2170 2175

Pro Ala Phe Arg Glu Leu Ser Leu Leu Leu Asp Gly Leu Glu Leu Asn
2180 2185 2190

Lys Thr Ala Leu Asp Thr Val Glu Ala Lys Lys Leu Ala Gln Arg Leu
2195 2200 2205

Arg Glu Val Thr Gly Gln Thr Asp His Tyr Phe Ser Gln Asp Val Arg
2210 2215 2220

Val Thr Ala Arg Leu Leu Ala Tyr Leu Leu Ala Phe Glu Ser His Gln
2225 2230 2235 2240

Gln Gly Phe Gly Leu Thr Ala Thr Gln Asp Ala His Phe Asn Glu Asn
2245 2250 2255

Leu Leu Trp Ala Gly Ser Ala Leu Leu Ala Pro Glu Thr Gly Asp Leu
2260 2265 2270

Trp Ala Ala Leu Gly Gln Arg Ala Pro Gly Gly Ser Pro Gly Ser Ala
2275 2280 2285

Gly Leu Val Arg His Leu Glu Glu Tyr Ala Ala Thr Leu Ala Arg Asn
2290 2295 2300

Met Asp Leu Thr Tyr Leu Asn Pro Val Gly Leu Val Thr Pro Asn Ile
2305 2310 2315 2320

Met Leu Ser Ile Asp Arg Met Glu Gln Pro Ser Ser Ser Gln Gly Ala
 2325 2330 2335
 His Arg Tyr Pro Arg Tyr His Ser Asn Leu Phe Arg Gly Gln Asp Ala
 2340 2345 2350
 Trp Asp Pro His Thr His Val Leu Leu Pro Ser Gln Ser Pro Gln Pro
 2355 2360 2365
 Ser Pro Ser Glu Val Leu Pro Thr Ser Ser Asn Ala Glu Asn Ala Thr
 2370 2375 2380
 Ala Ser Gly Val Val Ser Pro Pro Ala Pro Leu Glu Pro Glu Ser Glu
 2385 2390 2395 2400
 Pro Gly Ile Ser Ile Val Ile Leu Leu Val Tyr Arg Ala Leu Gly Gly
 2405 2410 2415
 Leu Leu Pro Ala Gln Phe Gln Ala Glu Arg Arg Gly Ala Arg Leu Pro
 2420 2425 2430
 Gln Asn Pro Val Met Asn Ser Pro Val Val Ser Val Ala Val Phe Arg
 2435 2440 2445
 Gly Arg Asn Phe Leu Arg Gly Ala Leu Val Ser Pro Ile Asn Leu Glu
 2450 2455 2460
 Phe Arg Leu Leu Gln Thr Ala Asn Arg Ser Lys Ala Ile Cys Val Gln
 2465 2470 2475 2480
 Trp Asp Pro Pro Gly Pro Ala Asp Gln His Gly Met Trp Thr Ala Arg
 2485 2490 2495
 Asp Cys Glu Leu Val His Arg Asn Gly Ser His Ala Arg Cys Arg Cys
 2500 2505 2510
 Ser Arg Thr Gly Thr Phe Gly Val Leu Met Asp Ala Ser Pro Arg Glu
 2515 2520 2525
 Arg Leu Glu Gly Asp Leu Glu Leu Leu Ala Val Phe Thr His Val Val
 2530 2535 2540
 Val Ala Ala Ser Val Thr Ala Leu Val Leu Thr Ala Ala Val Leu Leu
 2545 2550 2555 2560
 Ser Leu Arg Ser Leu Lys Ser Asn Val Arg Gly Ile His Ala Asn Val
 2565 2570 2575
 Ala Ala Ala Leu Gly Val Ala Glu Leu Leu Phe Leu Leu Gly Ile His
 2580 2585 2590
 Arg Thr His Asn Gln Leu Leu Cys Thr Val Val Ala Ile Leu Leu His
 2595 2600 2605
 Tyr Phe Phe Leu Ser Thr Phe Ala Trp Leu Leu Val Gln Gly Leu His
 2610 2615 2620

Leu Tyr Arg Met Gln Val Glu Pro Arg Asn Val Asp Arg Gly Ala Met
 2625 2630 2635 2640
 Arg Phe Tyr His Ala Leu Gly Trp Gly Val Pro Ala Val Leu Leu Gly
 2645 2650 2655
 Leu Ala Val Gly Leu Asp Pro Glu Gly Tyr Gly Asn Pro Asp Phe Cys
 2660 2665 2670
 Trp Ile Ser Ile His Glu Pro Leu Ile Trp Ser Phe Ala Gly Pro Ile
 2675 2680 2685
 Val Leu Val Ile Val Met Asn Gly Ile Met Phe Leu Leu Ala Ala Arg
 2690 2695 2700
 Thr Ser Cys Ser Thr Gly Gln Arg Glu Ala Lys Lys Thr Ser Val Leu
 2705 2710 2715 2720
 Arg Thr Leu Arg Ser Ser Phe Leu Leu Leu Leu Val Ser Ala Ser
 2725 2730 2735
 Trp Leu Phe Gly Leu Leu Ala Val Asn His Ser Val Leu Ala Phe His
 2740 2745 2750
 Tyr Leu His Ala Gly Leu Cys Gly Leu Gln Gly Leu Ala Val Leu Leu
 2755 2760 2765
 Leu Phe Cys Val Leu Asn Ala Asp Ala Arg Ala Ala Trp Thr Pro Ala
 2770 2775 2780
 Cys Leu Gly Lys Lys Ala Ala Pro Glu Glu Thr Arg Pro Ala Pro Gly
 2785 2790 2795 2800
 Pro Gly Ser Gly Ala Tyr Asn Asn Thr Ala Leu Phe Glu Glu Ser Gly
 2805 2810 2815
 Leu Ile Arg Ile Thr Leu Gly Ala Ser Thr Val Ser Ser Val Ser Ser
 2820 2825 2830
 Ala Arg Ser Gly Arg Ala Gln Asp Gln Asp Ser Gln Arg Gly Arg Ser
 2835 2840 2845
 Tyr Leu Arg Asp Asn Val Leu Val Arg His Gly Ser Thr Ala Glu His
 2850 2855 2860
 Ala Glu His Ser Leu Gln Ala His Ala Gly Pro Thr Asp Leu Asp Val
 2865 2870 2875 2880
 Ala Met Phe His Arg Asp Ala Gly Ala Asp Ser Asp Ser Asp Ser Asp
 2885 2890 2895
 Leu Ser Leu Glu Glu Glu Arg Ser Leu Ser Ile Pro Ser Ser Glu Ser
 2900 2905 2910
 Glu Asp Asn Gly Arg Thr Arg Gly Arg Phe Gln Arg Pro Leu Arg Arg
 2915 2920 2925

Ala Ala Gln Ser Glu Arg Leu Leu Ala His Pro Lys Asp Val Asp Gly
 2930 2935 2940
 Asn Asp Leu Leu Ser Tyr Trp Pro Ala Leu Gly Glu Cys Glu Ala Ala
 2945 2950 2955 2960
 Pro Cys Ala Leu Gln Ala Trp Gly Ser Glu Arg Arg Leu Gly Leu Asp
 2965 2970 2975
 Ser Asn Lys Asp Ala Ala Asn Asn Asn Gln Pro Glu Leu Ala Leu Thr
 2980 2985 2990
 Ser Gly Asp Glu Thr Ser Leu Gly Arg Ala Gln Arg Gln Arg Lys Gly
 2995 3000 3005
 Ile Leu Lys Asn Arg Leu Gln Tyr Pro Leu Val Pro Gln Thr Arg Gly
 3010 3015 3020
 Thr Pro Glu Leu Ser Trp Cys Arg Ala Ala Thr Leu Gly His Arg Ala
 3025 3030 3035 3040
 Val Pro Ala Ala Ser Tyr Gly Arg Ile Tyr Ala Gly Gly Gly Thr Gly
 3045 3050 3055
 Ser Leu Ser Gln Pro Ala Ser Arg Tyr Ser Ser Arg Glu Gln Leu Asp
 3060 3065 3070
 Leu Leu Leu Arg Arg Gln Leu Ser Arg Glu Arg Leu Glu Glu Val Pro
 3075 3080 3085
 Val Pro Ala Pro Val Leu His Pro Leu Ser Arg Pro Gly Ser Gln Glu
 3090 3095 3100
 Arg Leu Asp Thr Ala Pro Ala Arg Leu Glu Pro Arg Asp Arg Gly Ser
 3105 3110 3115 3120
 Thr Leu Pro Arg Arg Gln Pro Pro Arg Asp Tyr Pro Gly Thr Met Ala
 3125 3130 3135
 Gly Arg Phe Gly Ser Arg Asp Ala Leu Asp Leu Gly Ala Pro Arg Glu
 3140 3145 3150
 Trp Leu Ser Thr Leu Pro Pro Pro Arg Arg Asn Arg Asp Leu Asp Pro
 3155 3160 3165
 Gln His Pro Pro Leu Pro Leu Ser Pro Gln Arg Pro Leu Ser Arg Asp
 3170 3175 3180
 Pro Leu Leu Pro Ser Arg Pro Leu Asp Ser Leu Ser Arg Ile Ser Asn
 3185 3190 3195 3200
 Ser Arg Glu Arg Leu Asp Gln Val Pro Ser Arg His Pro Ser Arg Glu
 3205 3210 3215
 Ala Leu Gly Pro Ala Pro Gln Leu Leu Arg Ala Arg Glu Asp Pro Ala
 3220 3225 3230

Ser Gly Pro Ser His Gly Pro Ser Thr Glu Gln Leu Asp Ile Leu Ser
 3235 3240 3245

Ser Ile Leu Ala Ser Phe Asn Ser Ser Ala Leu Ser Ser Val Gln Ser
 3250 3255 3260

Ser Ser Thr Pro Ser Gly Pro His Thr Thr Ala Thr Pro Ser Ala Thr
 3265 3270 3275 3280

Ala Ser Ala Leu Gly Pro Ser Thr Pro Arg Ser Ala Thr Ser His Ser
 3285 3290 3295

Ile Ser Glu Leu Ser Pro Asp Ser Glu Val Pro Arg Ser Glu Gly His
 3300 3305 3310

Ser

<210> 70

<211> 2923

<212> PRT

<213> Homo sapiens

<400> 70

Met Arg Ser Pro Ala Thr Gly Val Pro Leu Pro Thr Pro Pro Pro Pro
 1 5 10 15

Leu Leu Leu Leu Leu Leu Leu Leu Pro Pro Pro Leu Leu Gly Asp
 20 25 30

Gln Val Gly Pro Cys Arg Ser Leu Gly Ser Arg Gly Arg Gly Ser Ser
 35 40 45

Gly Ala Cys Ala Pro Met Gly Trp Leu Cys Pro Ser Ser Ala Ser Asn
 50 55 60

Leu Trp Leu Tyr Thr Ser Arg Cys Arg Asp Ala Gly Thr Glu Leu Thr
 65 70 75 80

Gly His Leu Val Pro His His Asp Gly Leu Arg Val Trp Cys Pro Glu
 85 90 95

Ser Glu Ala His Ile Pro Leu Pro Pro Ala Pro Glu Gly Cys Pro Trp
 100 105 110

Ser Cys Arg Leu Leu Gly Ile Gly Gly His Leu Ser Pro Gln Gly Lys
 115 120 125

Leu Thr Leu Pro Glu Glu His Pro Cys Leu Lys Ala Pro Arg Leu Arg
 130 135 140

Cys Gln Ser Cys Lys Leu Ala Gln Ala Pro Gly Leu Arg Ala Gly Glu
 145 150 155 160

Arg Ser Pro Glu Glu Ser Leu Gly Gly Arg Arg Lys Arg Asn Val Asn

165	170	175
Thr Ala Pro Gln Phe Gln Pro Pro Ser Tyr Gln Ala Thr Val Pro Glu		
180	185	190
Asn Gln Pro Ala Gly Thr Pro Val Ala Ser Leu Arg Ala Ile Asp Pro		
195	200	205
Asp Glu Gly Glu Ala Gly Arg Leu Glu Tyr Thr Met Asp Ala Leu Phe		
210	215	220
Asp Ser Arg Ser Asn Gln Phe Phe Ser Leu Asp Pro Val Thr Gly Ala		
225	230	235
Val Thr Thr Ala Glu Glu Leu Asp Arg Glu Thr Lys Ser Thr His Val		
245	250	255
Phe Arg Val Thr Ala Gln Asp His Gly Met Pro Arg Arg Ser Ala Leu		
260	265	270
Ala Thr Leu Thr Ile Leu Val Thr Asp Thr Asn Asp His Asp Pro Val		
275	280	285
Phe Glu Gln Gln Glu Tyr Lys Glu Ser Leu Arg Glu Asn Leu Glu Val		
290	295	300
Gly Tyr Glu Val Leu Thr Val Arg Ala Thr Asp Gly Asp Ala Pro Pro		
305	310	315
Asn Ala Asn Ile Leu Tyr Arg Leu Leu Glu Gly Ser Gly Gly Ser Pro		
325	330	335
Ser Glu Val Phe Glu Ile Asp Pro Arg Ser Gly Val Ile Arg Thr Arg		
340	345	350
Gly Pro Val Asp Arg Glu Glu Val Glu Ser Tyr Gln Leu Thr Val Glu		
355	360	365
Ala Ser Asp Gln Gly Arg Asp Pro Gly Pro Arg Ser Thr Thr Ala Ala		
370	375	380
Val Phe Leu Ser Val Glu Asp Asp Asn Asp Asn Ala Pro Gln Phe Ser		
385	390	395
Glu Lys Arg Tyr Val Val Gln Val Arg Glu Asp Val Thr Pro Gly Ala		
405	410	415
Pro Val Leu Arg Val Thr Ala Ser Asp Arg Asp Lys Gly Ser Asn Ala		
420	425	430
Val Val His Tyr Ser Ile Met Ser Gly Asn Ala Arg Gly Gln Phe Tyr		
435	440	445
Leu Asp Ala Gln Thr Gly Ala Leu Asp Val Val Ser Pro Leu Asp Tyr		
450	455	460
Glu Thr Thr Lys Glu Tyr Thr Leu Arg Val Arg Ala Gln Asp Gly Gly		

465 470 475 480
 Arg Pro Pro Leu Ser Asn Val Ser Gly Leu Val Thr Val Gln Val Leu
 485 490 495
 Asp Ile Asn Asp Asn Ala Pro Ile Phe Val Ser Thr Pro Phe Gln Ala
 500 505 510
 Thr Val Leu Glu Ser Val Pro Leu Gly Tyr Leu Val Leu His Val Gln
 515 520 525
 Ala Ile Asp Ala Asp Ala Gly Asp Asn Ala Arg Leu Glu Tyr Arg Leu
 530 535 540
 Ala Gly Val Gly His Asp Phe Pro Phe Thr Ile Asn Asn Gly Thr Gly
 545 550 555 560
 Trp Ile Ser Val Ala Ala Glu Leu Asp Arg Glu Glu Val Asp Phe Tyr
 565 570 575
 Ser Phe Gly Val Glu Ala Arg Asp His Gly Thr Pro Ala Leu Thr Ala
 580 585 590
 Ser Ala Ser Val Ser Val Thr Val Leu Asp Val Asn Asp Asn Asn Pro
 595 600 605
 Thr Phe Thr Gln Pro Glu Tyr Thr Val Arg Leu Asn Glu Asp Ala Ala
 610 615 620
 Val Gly Thr Ser Val Val Thr Val Ser Ala Val Asp Arg Asp Ala His
 625 630 635 640
 Ser Val Ile Thr Tyr Gln Ile Thr Ser Gly Asn Thr Arg Asn Arg Phe
 645 650 655
 Ser Ile Thr Ser Gln Ser Gly Gly Gly Leu Val Ser Leu Ala Leu Pro
 660 665 670
 Leu Asp Tyr Lys Leu Glu Arg Gln Tyr Val Leu Ala Val Thr Ala Ser
 675 680 685
 Asp Gly Thr Arg Gln Asp Thr Ala Gln Ile Val Val Asn Val Thr Asp
 690 695 700
 Ala Asn Thr His Arg Pro Val Phe Gln Ser Ser His Tyr Thr Val Asn
 705 710 715 720
 Val Asn Glu Asp Arg Pro Ala Gly Thr Thr Val Val Leu Ile Ser Ala
 725 730 735
 Thr Asp Glu Asp Thr Gly Glu Asn Ala Arg Ile Thr Tyr Phe Met Glu
 740 745 750
 Asp Ser Ile Pro Gln Phe Arg Ile Asp Ala Asp Thr Gly Ala Val Thr
 755 760 765
 Thr Gln Ala Glu Leu Asp Tyr Glu Asp Gln Val Ser Tyr Thr Leu Ala

SECRET

770		775		780
Ile Thr Ala Arg Asp Asn Gly Ile Pro Gln Lys Ser Asp Thr Thr Tyr 785 790 795 800				
Leu Glu Ile Leu Val Asn Asp Val Asn Asp Asn Ala Pro Gln Phe Leu 805 810 815				
Arg Asp Ser Tyr Gln Gly Ser Val Tyr Glu Asp Val Pro Pro Phe Thr 820 825 830				
Ser Val Leu Gln Ile Ser Ala Thr Asp Arg Asp Ser Gly Leu Asn Gly 835 840 845				
Arg Val Phe Tyr Thr Phe Gln Gly Gly Asp Asp Gly Asp Gly Asp Phe 850 855 860				
Ile Val Glu Ser Thr Ser Gly Ile Val Arg Thr Leu Arg Arg Leu Asp 865 870 875 880				
Arg Glu Asn Val Ala Gln Tyr Val Leu Arg Ala Tyr Ala Val Asp Lys 885 890 895				
Gly Met Pro Pro Ala Arg Thr Pro Met Glu Val Thr Val Thr Val Leu 900 905 910				
Asp Val Asn Asp Asn Pro Pro Val Phe Glu Gln Asp Glu Phe Asp Val 915 920 925				
Phe Val Glu Glu Asn Ser Pro Ile Gly Leu Ala Val Ala Arg Val Thr 930 935 940				
Ala Thr Asp Pro Asp Glu Gly Thr Asn Ala Gln Ile Met Tyr Gln Ile 945 950 955 960				
Val Glu Gly Asn Ile Pro Glu Val Phe Gln Leu Asp Ile Phe Ser Gly 965 970 975				
Glu Leu Thr Ala Leu Val Asp Leu Asp Tyr Glu Asp Arg Pro Glu Tyr 980 985 990				
Val Leu Val Ile Gln Ala Thr Ser Ala Pro Leu Val Ser Arg Ala Thr 995 1000 1005				
Val His Val Arg Leu Leu Asp Arg Asn Asp Asn Pro Pro Val Leu Gly 1010 1015 1020				
Asn Phe Glu Ile Leu Phe Asn Asn Tyr Val Thr Asn Arg Ser Ser Ser 1025 1030 1035 1040				
Phe Pro Gly Gly Ala Ile Gly Arg Val Pro Ala His Asp Pro Asp Ile 1045 1050 1055				
Ser Asp Ser Leu Thr Tyr Ser Phe Glu Arg Gly Asn Glu Leu Ser Leu 1060 1065 1070				
Val Leu Leu Asn Ala Ser Thr Gly Glu Leu Lys Leu Ser Arg Ala Leu				

1075	1080	1085
Asp Asn Asn Arg Pro Leu Glu Ala Ile Met Ser Val Leu Val Ser Asp 1090 1095 1100		
Gly Val His Ser Val Thr Ala Gln Cys Ala Leu Arg Val Thr Ile Ile 1105 1110 1115 1120		
Thr Asp Glu Met Leu Thr His Ser Ile Thr Leu Arg Leu Glu Asp Met 1125 1130 1135		
Ser Pro Glu Arg Phe Leu Ser Pro Leu Leu Gly Leu Phe Ile Gln Ala 1140 1145 1150		
Val Ala Ala Thr Leu Ala Thr Pro Pro Asp His Val Val Val Phe Asn 1155 1160 1165		
Val Gln Arg Asp Thr Asp Ala Pro Gly Gly His Ile Leu Asn Val Ser 1170 1175 1180		
Leu Ser Val Gly Gln Pro Pro Gly Pro Gly Gly Gly Pro Pro Phe Leu 1185 1190 1195 1200		
Pro Ser Glu Asp Leu Gln Glu Arg Leu Tyr Leu Asn Arg Ser Leu Leu 1205 1210 1215		
Thr Ala Ile Ser Ala Gln Arg Val Leu Pro Phe Asp Asp Asn Ile Cys 1220 1225 1230		
Leu Arg Glu Pro Cys Glu Asn Tyr Met Arg Cys Val Ser Val Leu Arg 1235 1240 1245		
Phe Asp Ser Ser Ala Pro Phe Ile Ala Ser Ser Ser Val Leu Phe Arg 1250 1255 1260		
Pro Ile His Pro Val Gly Gly Leu Arg Cys Arg Cys Pro Pro Gly Phe 1265 1270 1275 1280		
Thr Gly Asp Tyr Cys Glu Thr Glu Val Asp Leu Cys Tyr Ser Arg Pro 1285 1290 1295		
Cys Gly Pro His Gly Arg Cys Arg Ser Arg Glu Gly Gly Tyr Thr Cys 1300 1305 1310		
Leu Cys Arg Asp Gly Tyr Thr Gly Glu His Cys Glu Val Ser Ala Arg 1315 1320 1325		
Ser Gly Arg Cys Thr Pro Gly Val Cys Lys Asn Gly Gly Thr Cys Val 1330 1335 1340		
Asn Leu Leu Val Gly Gly Phe Lys Cys Asp Cys Pro Ser Gly Asp Phe 1345 1350 1355 1360		
Glu Lys Pro Tyr Cys Gln Val Thr Thr Arg Ser Phe Pro Ala His Ser 1365 1370 1375		
Phe Ile Thr Phe Arg Gly Leu Arg Gln Arg Phe His Phe Thr Leu Ala		

1380	1385	1390
Leu Ser Phe Ala Thr Lys Glu Arg Asp Gly Leu Leu Leu Tyr Asn Gly		
1395	1400	1405
Arg Phe Asn Glu Lys His Asp Phe Val Ala Leu Glu Val Ile Gln Glu		
1410	1415	1420
Gln Val Gln Leu Thr Phe Ser Ala Gly Glu Ser Thr Thr Thr Val Ser		
1425	1430	1435 1440
Pro Phe Val Pro Gly Gly Val Ser Asp Gly Gln Trp His Thr Val Gln		
1445	1450	1455
Leu Lys Tyr Tyr Asn Lys Pro Leu Leu Gly Gln Thr Gly Leu Pro Gln		
1460	1465	1470
Gly Pro Ser Glu Gln Lys Val Ala Val Val Thr Val Asp Gly Cys Asp		
1475	1480	1485
Thr Gly Val Ala Leu Arg Phe Gly Ser Val Leu Gly Asn Tyr Ser Cys		
1490	1495	1500
Ala Ala Gln Gly Thr Gln Gly Gly Ser Lys Lys Ser Leu Asp Leu Thr		
1505	1510	1515 1520
Gly Pro Leu Leu Leu Gly Gly Val Pro Asp Leu Pro Glu Ser Phe Pro		
1525	1530	1535
Val Arg Met Arg Gln Phe Val Gly Cys Met Arg Asn Leu Gln Val Asp		
1540	1545	1550
Ser Arg His Ile Asp Met Ala Asp Phe Ile Ala Asn Asn Gly Thr Val		
1555	1560	1565
Pro Gly Cys Pro Ala Lys Lys Asn Val Cys Asp Ser Asn Thr Cys His		
1570	1575	1580
Asn Gly Gly Thr Cys Val Asn Gln Trp Asp Ala Phe Ser Cys Glu Cys		
1585	1590	1595 1600
Pro Leu Gly Phe Gly Gly Lys Ser Cys Ala Gln Glu Met Ala Asn Pro		
1605	1610	1615
Gln His Phe Leu Gly Ser Ser Leu Val Ala Trp His Gly Leu Ser Leu		
1620	1625	1630
Pro Ile Ser Gln Pro Trp Tyr Leu Ser Leu Met Phe Arg Thr Arg Gln		
1635	1640	1645
Ala Asp Gly Val Leu Leu Gln Ala Ile Thr Arg Gly Arg Ser Thr Ile		
1650	1655	1660
Thr Leu Gln Leu Arg Glu Gly His Val Met Leu Ser Val Glu Gly Thr		
1665	1670	1675 1680
Gly Leu Gln Ala Ser Ser Leu Arg Leu Glu Pro Gly Arg Ala Asn Asp		

100-6978

1685										1690										1695										
Gly	Asp	Trp	His	His	Ala	Gln	Leu	Ala	Leu	Gly	Ala	Ser	Gly	Gly	Pro															
			1700					1705					1710																	
Gly	His	Ala	Ile	Leu	Ser	Phe	Asp	Tyr	Gly	Gln	Gln	Arg	Ala	Glu	Gly															
			1715				1720					1725																		
Asn	Leu	Gly	Pro	Arg	Leu	His	Gly	Leu	His	Leu	Ser	Asn	Ile	Thr	Val															
			1730			1735					1740																			
Gly	Gly	Ile	Pro	Gly	Pro	Ala	Gly	Gly	Val	Ala	Arg	Gly	Phe	Arg	Gly															
1745					1750					1755					1760															
Cys	Leu	Gln	Gly	Val	Arg	Val	Ser	Asp	Thr	Pro	Glu	Gly	Val	Asn	Ser															
			1765					1770						1775																
Leu	Asp	Pro	Ser	His	Gly	Glu	Ser	Ile	Asn	Val	Glu	Gln	Gly	Cys	Ser															
			1780				1785						1790																	
Leu	Pro	Asp	Pro	Cys	Asp	Ser	Asn	Pro	Cys	Pro	Ala	Asn	Ser	Tyr	Cys															
			1795				1800					1805																		
Ser	Asn	Asp	Trp	Asp	Ser	Tyr	Ser	Cys	Ser	Cys	Asp	Pro	Gly	Tyr	Tyr															
			1810			1815					1820																			
Gly	Asp	Asn	Cys	Thr	Asn	Val	Cys	Asp	Leu	Asn	Pro	Cys	Glu	His	Gln															
1825				1830					1835					1840																
Ser	Val	Cys	Thr	Arg	Lys	Pro	Ser	Ala	Pro	His	Gly	Tyr	Thr	Cys	Glu															
			1845					1850					1855																	
Cys	Pro	Pro	Asn	Tyr	Leu	Gly	Pro	Tyr	Cys	Glu	Thr	Arg	Ile	Asp	Gln															
			1860				1865					1870																		
Pro	Cys	Pro	Arg	Gly	Trp	Trp	Gly	His	Pro	Thr	Cys	Gly	Pro	Cys	Asn															
			1875			1880					1885																			
Cys	Asp	Val	Ser	Lys	Gly	Phe	Asp	Pro	Asp	Cys	Asn	Lys	Thr	Ser	Gly															
			1890			1895																								

1985	1990	1995	2000
Lys Gly Ser Phe Gly Thr Ala Val Arg His Cys Asp Glu His Arg Gly	2005	2010	2015
Trp Leu Pro Pro Asn Leu Phe Asn Cys Thr Ser Ile Thr Phe Ser Glu	2020	2025	2030
Leu Lys Gly Phe Ala Glu Arg Leu Gln Arg Asn Glu Ser Gly Leu Asp	2035	2040	2045
Ser Gly Arg Ser Gln Gln Leu Ala Leu Leu Leu Arg Asn Ala Thr Gln	2050	2055	2060
His Thr Ala Gly Tyr Phe Gly Ser Asp Val Lys Val Ala Tyr Gln Leu	2065	2070	2075
Ala Thr Arg Leu Leu Ala His Glu Ser Thr Gln Arg Gly Phe Gly Leu	2085	2090	2095
Ser Ala Thr Gln Asp Val His Phe Thr Glu Asn Leu Leu Arg Val Gly	2100	2105	2110
Ser Ala Leu Leu Asp Thr Ala Asn Lys Arg His Trp Glu Leu Ile Gln	2115	2120	2125
Gln Thr Glu Gly Gly Thr Ala Trp Leu Leu Gln His Tyr Glu Ala Tyr	2130	2135	2140
Ala Ser Ala Leu Ala Gln Asn Met Arg His Thr Tyr Leu Ser Pro Phe	2145	2150	2155
Thr Ile Val Thr Pro Asn Ile Val Ile Ser Val Val Arg Leu Asp Lys	2165	2170	2175
Gly Asn Phe Ala Gly Ala Lys Leu Pro Arg Tyr Glu Ala Leu Arg Gly	2180	2185	2190
Glu Gln Pro Pro Asp Leu Glu Thr Thr Val Ile Leu Pro Glu Ser Val	2195	2200	2205
Phe Arg Glu Thr Pro Pro Val Val Arg Pro Ala Gly Pro Gly Glu Ala	2210	2215	2220
Gln Glu Pro Glu Glu Leu Ala Arg Arg Gln Arg Arg His Pro Glu Leu	2225	2230	2235
Ser Gln Gly Glu Ala Val Ala Ser Val Ile Ile Tyr Arg Thr Leu Ala	2245	2250	2255
Gly Leu Leu Pro His Asn Tyr Asp Pro Asp Lys Arg Ser Leu Arg Val	2260	2265	2270
Pro Lys Arg Pro Ile Ile Asn Thr Pro Val Val Ser Ile Ser Val His	2275	2280	2285
Asp Asp Glu Glu Leu Leu Pro Arg Ala Leu Asp Lys Pro Val Thr Val			

2290						2295										2300
Gln Phe Arg Leu Leu Glu Thr Glu Glu Arg Thr Lys Pro Ile Cys Val																
2305					2310				2315							2320
Phe Trp Asn His Ser Ile Leu Val Ser Gly Thr Gly Gly Trp Ser Ala																
				2325					2330							2335
Arg Gly Cys Glu Val Val Phe Arg Asn Glu Ser His Val Ser Cys Gln																
			2340					2345							2350	
Cys Asn His Met Thr Ser Phe Ala Val Leu Met Asp Val Ser Arg Arg																
		2355					2360						2365			
Glu Asn Gly Glu Ile Leu Pro Leu Lys Thr Leu Thr Tyr Val Ala Leu																
	2370					2375						2380				
Gly Val Thr Leu Ala Ala Leu Leu Leu Thr Phe Phe Phe Leu Thr Leu																
2385				2390						2395						2400
Leu Arg Ile Leu Arg Ser Asn Gln His Gly Ile Arg Arg Asn Leu Thr																
				2405					2410						2415	
Ala Ala Leu Gly Leu Ala Gln Leu Val Phe Leu Leu Gly Ile Asn Gln																
			2420				2425							2430		
Ala Asp Leu Pro Phe Ala Cys Thr Val Ile Ala Ile Leu Leu His Phe																
	2435						2440						2445			
Leu Tyr Leu Cys Thr Phe Ser Trp Ala Leu Leu Glu Ala Leu His Leu																
	2450					2455						2460				
Tyr Arg Ala Leu Thr Glu Val Arg Asp Val Asn Thr Gly Pro Met Arg																
2465				2470						2475						2480
Phe Tyr Tyr Met Leu Gly Trp Gly Val Pro Ala Phe Ile Thr Gly Leu																
			2485						2490						2495	
Ala Val Gly Leu Asp Pro Glu Gly Tyr Gly Asn Pro Asp Phe Cys Trp																
		2500						2505						2510		
Leu Ser Ile Tyr Asp Thr Leu Ile Trp Ser Phe Ala Gly Pro Val Ala																
	2515					2520							2525			
Phe Ala Val Ser Met Ser Val Phe Leu Tyr Ile Leu Ala Ala Arg Ala																
	2530				2535							2540				
Ser Cys Ala Ala Gln Arg Gln Gly Phe Glu Lys Lys Gly Pro Val Ser																
2545				2550					2555							2560
Gly Leu Gln Pro Ser Phe Ala Val Leu Leu Leu Leu Ser Ala Thr Trp																
			2565						2570						2575	
Leu Leu Ala Leu Leu Ser Val Asn Ser Asp Thr Leu Leu Phe His Tyr																
	2580						2585									

2595	2600	2605
Tyr Val Val Leu Ser Lys Glu Val Arg Lys Ala Leu Lys Leu Ala Cys		
2610	2615	2620
Ser Arg Lys Pro Ser Pro Asp Pro Ala Leu Thr Thr Lys Ser Thr Leu		
2625	2630	2635 2640
Thr Ser Ser Tyr Asn Cys Pro Ser Pro Tyr Ala Asp Gly Arg Leu Tyr		
2645	2650	2655
Gln Pro Tyr Gly Asp Ser Ala Gly Ser Leu His Ser Thr Ser Arg Ser		
2660	2665	2670
Gly Lys Ser Gln Pro Ser Tyr Ile Pro Phe Leu Leu Arg Glu Glu Ser		
2675	2680	2685
Ala Leu Asn Pro Gly Gln Gly Pro Pro Gly Leu Gly Asp Pro Gly Ser		
2690	2695	2700
Leu Phe Leu Glu Gly Gln Asp Gln Gln His Asp Pro Asp Thr Asp Ser		
2705	2710	2715 2720
Asp Ser Asp Leu Ser Leu Glu Asp Asp Gln Ser Gly Ser Tyr Ala Ser		
2725	2730	2735
Thr His Ser Ser Asp Ser Glu Glu Glu Glu Glu Glu Glu Glu Glu		
2740	2745	2750
Ala Ala Phe Pro Gly Glu Gln Gly Trp Asp Ser Leu Leu Gly Pro Gly		
2755	2760	2765
Ala Glu Arg Leu Pro Leu His Ser Thr Pro Lys Asp Gly Gly Pro Gly		
2770	2775	2780
Pro Gly Lys Ala Pro Trp Pro Gly Asp Phe Gly Thr Thr Ala Lys Glu		
2785	2790	2795 2800
Ser Ser Gly Asn Gly Ala Pro Glu Glu Arg Leu Arg Glu Asn Gly Asp		
2805	2810	2815
Ala Leu Ser Arg Glu Gly Ser Leu Gly Pro Leu Pro Gly Ser Ser Ala		
2820	2825	2830
Gln Pro His Lys Gly Ile Leu Lys Lys Lys Cys Leu/Pro Thr Ile Ser		
2835	2840	2845
Glu Lys Ser Ser Leu Leu Arg Leu Pro Leu Glu Gln Cys Thr Gly Ser		
2850	2855	2860
Ser Arg Gly Ser Ser Ala Ser Glu Gly Ser Arg Gly Gly Pro Pro Pro		
2865	2870	2875 2880
Arg Pro Pro Pro Arg Gln Ser Leu Gln Glu Gln Leu Asn Gly Val Met		
2885	2890	2895
Pro Ile Ala Met Ser Ile Lys Ala Gly Thr Val Asp Glu Asp Ser Ser		

10-11-1964

2900 2905 2910

Gly Ser Glu Phe Leu Phe Phe Asn Phe Leu His
2915 2920

<210> 71
<211> 2920
<212> PRT
<213> Mus musculus

<400> 71

Met Arg Thr Arg Ala Ala Ser Ala Pro Leu Pro Thr Pro Leu Leu Pro
1 5 10 15

Leu Leu Leu Leu Leu Leu Leu Leu Pro Pro Ser Pro Leu Leu Gly Asp
20 25 30

Gln Val Gly Pro Cys Arg Ser Leu Gly Ser Gly Gly Arg Ser Ser Ser
35 40 45

Gly Ala Cys Ala Pro Val Gly Trp Leu Cys Pro Ala Ser Ala Ser Asn
50 55 60

Leu Trp Leu Tyr Thr Ser Arg Cys Arg Glu Ser Gly Ile Glu Leu Thr
65 70 75 80

Gly His Leu Val Pro His His Asp Gly Leu Arg Val Trp Cys Pro Glu
85 90 95

Ser Gly Ala His Ile Pro Leu Pro Pro Ser Ser Glu Gly Cys Pro Trp
100 105 110

Ser Cys Arg Leu Leu Gly Ile Gly Gly His Leu Ser Pro Gln Gly Thr
115 120 125

Leu Thr Leu Pro Glu Glu His Pro Cys Leu Lys Ala Pro Arg Leu Arg
130 135 140

Cys Gln Ser Cys Lys Leu Ala Gln Ala Pro Gly Leu Arg Ala Gly Glu
145 150 155 160

Gly Ser Pro Glu Glu Ser Leu Gly Gly Arg Arg Lys Arg Asn Val Asn
165 170 175

Thr Ala Pro Gln Phe Gln Pro Pro Ser Tyr Gln Ala Thr Val Pro Glu
180 185 190

Asn Gln Pro Ala Gly Thr Ser Val Ala Ser Leu Arg Ala Ile Asp Pro
195 200 205

Asp Glu Gly Glu Ala Gly Arg Leu Glu Tyr Thr Met Asp Ala Leu Phe
210 215 220

Asp Ser Arg Ser Asn His Phe Phe Ser Leu Asp Pro Ile Thr Gly Val
225 230 235 240

Val Thr Thr Ala Glu Glu Leu Asp Arg Glu Thr Lys Ser Thr His Val
 245 250 255
 Phe Arg Val Thr Ala Gln Asp His Gly Met Pro Arg Arg Ser Ala Leu
 260 265 270
 Ala Thr Leu Thr Ile Leu Val Thr Asp Thr Asn Asp His Asp Pro Val
 275 280 285
 Phe Glu Gln Gln Glu Tyr Lys Glu Ser Leu Arg Glu Asn Leu Glu Val
 290 295 300
 Gly Tyr Glu Val Leu Thr Val Arg Ala Thr Asp Gly Asp Ala Pro Pro
 305 310 315 320
 Asn Ala Asn Ile Leu Tyr Arg Leu Leu Glu Gly Ala Gly Asp Ser Pro
 325 330 335
 Ser Asp Ala Phe Glu Ile Asp Pro Arg Ser Gly Val Ile Arg Thr Arg
 340 345 350
 Gly Pro Val Asp Arg Glu Glu Val Glu Ser Tyr Lys Leu Thr Val Glu
 355 360 365
 Ala Ser Asp Gln Gly Arg Asp Pro Gly Pro Arg Ser Ser Thr Ala Ile
 370 375 380
 Val Phe Leu Ser Val Glu Asp Asp Asn Asp Asn Ala Pro Gln Phe Ser
 385 390 395 400
 Glu Lys Arg Tyr Val Val Gln Val Arg Glu Asp Val Thr Pro Gly Ala
 405 410 415
 Pro Val Leu Arg Val Thr Ala Ser Asp Arg Asp Lys Gly Ser Asn Ala
 420 425 430
 Leu Val His Tyr Ser Ile Met Ser Gly Asn Ala Arg Gly Gln Phe Tyr
 435 440 445
 Leu Asp Ala Gln Thr Gly Ala Leu Asp Val Val Ser Pro Leu Asp Tyr
 450 455 460
 Glu Thr Thr Lys Glu Tyr Thr Leu Arg Ile Arg Ala Gln Asp Gly Gly
 465 470 475 480
 Arg Pro Pro Leu Ser Asn Val Ser Gly Leu Val Thr Val Gln Val Leu
 485 490 495
 Asp Ile Asn Asp Ile Arg Pro Pro Ile Phe Val Ser Thr Pro Phe Gln
 500 505 510
 Ala Thr Val Leu Glu Ser Val Pro Leu Gly Tyr Leu Val Leu His Val
 515 520 525
 Gln Ala Ile Asp Ala Asp Ala Gly Asp Asn Ala Arg Leu Glu Tyr Ser
 530 535 540

Leu Ala Gly Val Gly His Asp Phe Pro Phe Thr Ile Asn Asn Gly Thr
 545 550 555 560
 Gly Trp Ile Ser Val Ala Ala Glu Leu Asp Arg Glu Glu Val Asp Phe
 565 570 575
 Tyr Ser Phe Gly Val Glu Ala Arg Asp His Gly Thr Pro Ala Leu Thr
 580 585 590
 Ala Ser Ala Ser Val Ser Val Thr Ile Leu Asn Val Asn Asp Asn Asn
 595 600 605
 Pro Thr Phe Thr Gln Pro Glu Tyr Thr Val Arg Leu Asn Glu Asp Ala
 610 615 620
 Ala Val Gly Thr Ser Val Val Thr Val Ser Ala Val Asp Arg His Ala
 625 630 635 640
 His Ser Val Ile Thr Tyr Gln Ile Thr Ser Gly Asn Thr Arg Asn Arg
 645 650 655
 Phe Ser Ile Thr Ser Gln Ser Gly Gly Gly Leu Val Ser Leu Ala Leu
 660 665 670
 Pro Leu Asp Tyr Lys Leu Glu Arg Gln Tyr Val Leu Ala Val Thr Ala
 675 680 685
 Ser Asp Gly Thr Arg Gln Asp Thr Ala Gln Ile Val Val Asn Val Thr
 690 695 700
 Asp Ala Asn Thr His Arg Pro Val Phe Gln Ser Ser His Tyr Thr Val
 705 710 715 720
 Asn Gly Asn Glu Asp Arg Pro Ala Gly Thr Thr Val Val Leu Ile Ser
 725 730 735
 Ala Thr Asp Glu Asp Thr Gly Glu Asn Ala Arg Ile Thr Tyr Phe Met
 740 745 750
 Glu Asp Ser Ile Pro Gln Phe Arg Ile Asp Gly Asp Thr Gly Ala Val
 755 760 765
 Thr Thr Gln Ala Glu Leu Asp Tyr Glu Asp Gln Val Ser Tyr Thr Leu
 770 775 780
 Ala Ile Thr Ala Arg Asp Asn Gly Ile Pro Gln Lys Ser Asp Thr Thr
 785 790 795 800
 Tyr Leu Glu Ile Leu Val Asn Asp Val Asn Asp Asn Ala Pro Gln Phe
 805 810 815
 Leu Arg Asp Ser Tyr Gln Gly Thr Val Tyr Glu Asp Val Pro Pro Phe
 820 825 830
 Thr Ser Val Leu Gln Ile Leu Ala Thr Asp Arg Asp Ser Gly Leu Asn
 835 840 845

Gly Arg Val Phe Tyr Thr Phe Gln Gly Gly Asp Asp Gly Asp Gly Asp
850 855 860

Phe Ile Val Glu Ser Thr Ser Gly Ile Val Arg Thr Leu Arg Arg Leu
865 870 875 880

Asp Arg Glu Asn Val Ala Gln Tyr Val Leu Arg Ala Tyr Ala Val Asp
885 890 895

Lys Gly Met Pro Pro Ala Arg Thr Pro Met Glu Val Thr Val Thr Val
900 905 910

Leu Asp Gly Asn Asp Asn Pro Pro Val Phe Glu Gln Asp Glu Phe Asp
915 920 925

Val Phe Val Glu Glu Asn Ser Pro Ile Gly Leu Ala Val Ala Arg Val
930 935 940

Thr Ala Thr Asp Pro Asp Glu Gly Thr Asn Ala Gln Ile Met Tyr Gln
945 950 955 960

Ile Val Glu Gly Asn Ile Pro Glu Val Phe Gln Leu Asp Ile Phe Ser
965 970 975

Gly Glu Leu Thr Ala Leu Val Asp Leu Asp Tyr Glu Asp Arg Pro Glu
980 985 990

Tyr Val Leu Val Ile Gln Ala Thr Ser Ala Pro Leu Val Ser Arg Ala
995 1000 1005

Thr Val His Val Arg Leu Leu Asp Arg Asn Asp Asn Pro Pro Val Leu
1010 1015 1020

Gly Asn Phe Glu Ile Leu Phe Asn Asn Tyr Val Thr Asn Arg Ser Ser
1025 1030 1035 1040

Ser Phe Pro Gly Gly Ala Ile Gly Arg Val Pro Ala His Asp Pro Asp
1045 1050 1055

Ile Ser Asp Ser Leu Thr Tyr Ser Phe Glu Arg Gly Asn Glu Leu Ser
1060 1065 1070

Leu Val Leu Leu Asn Ala Ser Thr Gly Glu Leu Arg Leu Ser Arg Ala
1075 1080 1085

Leu Asp Asn Asn Arg Pro Leu Glu Ala Ile Met Ser Val Leu Val Ser
1090 1095 1100

Asp Gly Val His Ser Val Thr Ala Gln Cys Ser Leu Arg Val Thr Ile
1105 1110 1115 1120

Ile Thr Asp Glu Met Leu Thr His Ser Ile Thr Leu Arg Leu Glu Asp
1125 1130 1135

Met Ser Pro Glu Arg Phe Leu Ser Pro Leu Leu Gly Leu Phe Ile Gln
1140 1145 1150

ALICE BAKER

Ala Val Ala Ala Thr Leu Ala Thr Pro Pro Asp His Val Val Val Phe	1155	1160	1165
Asn Val Gln Arg Asp Thr Asp Ala Pro Gly Gly His Ile Leu Asn Val	1170	1175	1180
Ser Leu Ser Val Gly Gln Pro Pro Gly Pro Gly Gly Gly Pro Pro Phe	1185	1190	1195
Leu Pro Ser Glu Asp Leu Gln Glu Arg Leu Tyr Leu Asn Arg Ser Leu	1205	1210	1215
Leu Thr Ala Ile Ser Ala Lys Arg Val Leu Pro Phe Asp Arg Gln His	1220	1225	1230
Leu Leu Arg Glu Pro Cys Glu Asn Tyr Met Arg Cys Val Ser Val Leu	1235	1240	1245
Arg Phe Asp Ser Ser Ala Pro Phe Ile Ala Ser Ser Ser Val Leu Phe	1250	1255	1260
Arg Pro Ile His Leu Val Gly Gly Leu Arg Cys Arg Cys Pro Pro Gly	1265	1270	1275
Leu Thr Gly Asp Tyr Cys Glu Thr Glu Val Asp Leu Cys Tyr Ser Arg	1285	1290	1295
Thr Cys Gly Pro His Gly Arg Cys Arg Ser Arg Glu Gly Gly Tyr Thr	1300	1305	1310
Cys Leu Cys Arg Gly Cys Tyr Thr Gly Glu His Cys Glu Ala Ser Thr	1315	1320	1325
His Ser Gly Arg Cys Thr Pro Gly Val Cys Lys Asn Gly Gly Thr Cys	1330	1335	1340
Val Asn Leu Leu Val Gly Gly Ile Lys Cys Asp Cys Pro Ser Gly His	1345	1350	1355
Phe Glu Lys Pro Phe Cys Gln Val Thr Thr Arg Ser Phe Pro Ala Arg	1365	1370	1375
Pro Phe Ile Thr Phe Arg Gly Leu His Gln Arg Phe His Phe Thr Leu	1380	1385	1390
Ala Leu Ser Phe Ala Thr Lys Glu Arg Asn Gly Leu Leu Leu Tyr Asn	1395	1400	1405
Gly Arg Phe Asn Glu Lys His Asp Phe Val Ala Leu Glu Val Ile Gln	1410	1415	1420
Glu Gln Val Gln Leu Thr Phe Ser Ala Gly Glu Ser Thr Thr Thr Val	1425	1430	1435
Ser Pro Phe Val Pro Gly Gly Val Ser Asp Gly Gln Trp His Thr Val	1445	1450	1455

Gln Leu Lys Tyr Tyr Asn Lys Pro Leu Leu Gly Gln Thr Gly Leu Pro
1460 1465 1470

Gln Gly Pro Ser Glu Gln Lys Val Ala Val Val Ser Val Asp Gly Cys
1475 1480 1485

Asp Thr Gly Val Ala Leu Arg Phe Gly Ala Met Leu Gly Asn Tyr Ser
1490 1495 1500

Cys Ala Ala Gln Glv Thr Gln Gly Gly Ser Lys Lys Ser Leu Asp Leu
1505 1510 1515 1520

Thr Gly Pro Leu Leu Leu Gly Gly Val Pro Asp Leu Pro Glu Ser Phe
1525 1530 1535

Pro Val Arg Met Arg His Phe Val Gly Cys Met Lys Asp Leu Gln Val
1540 1545 1550

Asp Ser Arg His Ile Asp Met Ala Asp Phe Ile Ala Asn Asn Gly Thr
1555 1560 1565

Val Pro Gly Cys Pro Thr Lys Lys Ile Val Cys Asp Ser Ser Ile Cys
1570 1575 1580

His Asn Gly Gly Thr Cys Val Asn Gln Trp Asn Thr Phe Ser Cys Glu
1585 1590 1595 1600

Cys Pro Leu Gly Phe Gly Gly Lys Ser Cys Ala Gln Glu Met Ala Asn
1605 1610 1615

Pro Gln Arg Phe Leu Gly Ser Ser Leu Val Ala Trp His Gly Leu Tyr
1620 1625 1630

Leu Pro Ile Ser Gln Pro Trp His Leu Asn Leu Met Phe Arg Thr Arg
1635 1640 1645

Gln Ala Asp Gly Val Leu Leu Gln Ala Val Thr Arg Gly Arg Ser Thr
1650 1655 1660

Ile Thr Leu Gln Leu Arg Ala Gly His Val Arg Leu Ser Met Glu Gly
1665 1670 1675 1680

Thr Gly Leu Gln Ala Ser Ser Leu His Leu Glu Pro Gly Arg Ala Asn
1685 1690 1695

Asp Gly Asp Trp His His Ala Gln Leu Ala Leu Gly Ala Ser Arg Gly
1700 1705 1710

Pro Gly His Ala Ile Leu Ser Phe Asn Tyr Gly Gln Gln Thr Ala Glu
1715 1720 1725

Gly Asn Leu Gly Pro Arg Leu His Gly Leu His Leu Ser Asn Ile Thr
1730 1735 1740

Val Gly Gly Val Pro Gly Pro Ala Ser Gly Val Ala Arg Gly Phe Arg
1745 1750 1755 1760

SECRET

Gly Cys Leu Gln Gly Val Arg Val Ser Glu Thr Pro Glu Gly Val His
1765 1770 1775

Ser Leu Asp Pro Ser Arg Gly Glu Ser Ile Asn Val Glu Pro Gly Cys
1780 1785 1790

Ser Leu Pro Asp Pro Cys Asp Ser Asn Pro Cys Pro Thr Asn Ser Tyr
1795 1800 1805

Tyr Ser Asn Asp Trp Asn Ser Trp Ser Cys Ser Cys Val Leu Gly Tyr
1810 1815 1820

Tyr Gly Asp Asn Cys Thr Asn Val Cys Asp Leu Asn Pro Cys Glu His
1825 1830 1835 1840

Gln Ser Val Cys Thr Arg Lys Pro Asn Thr Pro His Gly Tyr Ile Cys
1845 1850 1855

Glu Cys Leu Pro Asn Tyr Leu Gly Pro Tyr Cys Glu Thr Arg Ile Asp.
1860 1865 1870

Gln Pro Cys Pro Arg Gly Trp Trp Gly His Pro Thr Cys Gly Pro Cys
1875 1880 1885

Asn Cys Asp Val Ser Lys Gly Phe Asp Pro Asp Cys Asn Lys Thr Ser
1890 1895 1900

Gly Glu Cys His Cys Lys Glu Lys His Tyr Arg Pro Pro Gly Ser Pro
1905 1910 1915 1920

Thr Cys Leu Leu Cys Asp Cys Tyr Pro Thr Gly Ser Leu Ser Arg Val
1925 1930 1935

Cys Asp Pro Glu Asp Gly Gln Cys Pro Cys Lys Pro Gly Val Ile Gly
1940 1945 1950

Arg Gln Cys Asp Arg Cys Asp Asn Pro Phe Ala Glu Val Thr Thr Asn
1955 1960 1965

Gly Cys Glu Val Asn Tyr Asp Ser Cys Pro Arg Ala Ile Glu Ala Gly
1970 1975 1980

Ile Trp Trp Pro Arg Thr Arg Phe Gly Leu Pro Ala Ala Ala Pro Cys
1985 1990 1995 2000

Pro Lys Gly Ser Phe Gly Thr Ala Val Arg His Cys Asp Glu His Arg
2005 2010 2015

Gly Trp Leu Pro Pro Asn Leu Phe Asn Cys Thr Ser Val Thr Phe Ser
2020 2025 2030

Glu Leu Lys Gly Phe Ala Glu Arg Leu Gln Arg Asn Glu Ser Gly Leu
2035 2040 2045

Asp Ser Gly Arg Ser Gln Arg Leu Ala Leu Leu Leu Arg Asn Ala Thr
2050 2055 2060

Gln His Thr Ser Gly Tyr Phe Gly Ser Asp Val Lys Val Ala Tyr Gln
2065 2070 2075 2080

Leu Ala Thr Arg Leu Leu Ala His Glu Ser Ala Gln Arg Gly Phe Gly
2085 2090 2095

Leu Ser Ala Thr Gln Asp Val His Phe Thr Glu Asn Leu Leu Arg Val
2100 2105 2110

Gly Ser Ala Leu Leu Asp Ala Ala Asn Lys Arg His Trp Glu Leu Ile
2115 2120 2125

Gln Gln Thr Glu Gly Gly Thr Ala Trp Leu Leu Gln His Tyr Glu Ala
2130 2135 2140

Tyr Ala Ser Ala Leu Ala Gln Asn Met Arg His Thr Tyr Leu Ser Pro
2145 2150 2155 2160

Phe Thr Ile Val Thr Pro Asn Ile Val Ile Ser Val Val Arg Leu Asp
2165 2170 2175

Lys Gly Asn Phe Ala Gly Thr Lys Leu Pro Arg Tyr Glu Ala Leu Arg
2180 2185 2190

Gly Glu Arg Pro Pro Asp Val Glu Thr Thr Val Ile Leu Pro Glu Ser
2195 2200 2205

Val Phe Arg Glu Met Pro Ser Met Val Arg Ser Ala Gly Pro Gly Glu
2210 2215 2220

Ala Gln Glu Thr Glu Glu Leu Ala Arg Arg Gln Arg Arg His Pro Glu
2225 2230 2235 2240

Leu Ser Gln Gly Glu Ala Val Ala Ser Val Ile Ile Tyr His Thr Leu
2245 2250 2255

Ala Gly Leu Leu Pro His Asn Tyr Asp Pro Asp Lys Arg Ser Leu Arg
2260 2265 2270

Val Pro Lys Arg Pro Val Ile Asn Thr Pro Ala Val Ser Ile Ser Val
2275 2280 2285

His Asp Asp Glu Glu Leu Leu Pro Arg Ala Leu Asp Lys Pro Val Thr
2290 2295 2300

Val Gln Phe Arg Leu Leu Glu Thr Glu Glu Arg Thr Lys Pro Ile Cys
2305 2310 2315 2320

Val Phe Trp Asn His Ser Ile Leu Val Ser Gly Thr Gly Gly Trp Ser
2325 2330 2335

Ala Arg Gly Cys Glu Val Val Phe Arg Asn Glu Ser His Val Ser Cys
2340 2345 2350

Gln Cys Asn His Met Thr Ser Phe Ala Val Leu Met Asp Met Ser Arg
2355 2360 2365

Arg Glu Asn Gly Glu Ile Leu Pro Leu Lys Thr Leu Thr Tyr Val Ala
 2370 2375 2380

Leu Gly Val Thr Leu Ala Ala Leu Met Leu Thr Phe Leu Phe Leu Thr
 2385 2390 2395 2400

Leu Leu Arg Ala Leu Arg Ser Asn Gln His Gly Ile Arg Arg Asn Leu
 2405 2410 2415

Thr Ala Ala Leu Gly Leu Ala Gln Leu Val Phe Leu Leu Gly Ile Asn
 2420 2425 2430

Gln Ala Asp Leu Pro Phe Ala Cys Thr Val Ile Ala Ile Leu Leu His
 2435 2440 2445

Phe Leu Tyr Leu Cys Thr Phe Ser Trp Ala Leu Leu Glu Ala Leu His
 2450 2455 2460

Leu Tyr Arg Ala Leu Thr Glu Val Arg Asp Val Asn Ala Ser Pro Met
 2465 2470 2475 2480

Arg Phe Tyr Tyr Met Leu Gly Trp Gly Val Pro Ala Phe Ile Thr Gly
 2485 2490 2495

Leu Ala Val Gly Leu Asp Pro Glu Gly Tyr Gly Asn Pro Asp Phe Cys
 2500 2505 2510

Trp Leu Ser Val Tyr Asp Thr Leu Ile Trp Ser Phe Ala Gly Pro Val
 2515 2520 2525

Ala Phe Ala Val Ser Met Arg Val Phe Leu Tyr Ile Leu Ser Ala Arg
 2530 2535 2540

Ala Ser Cys Ala Ala Gln Arg Gln Gly Phe Glu Lys Lys Gly Pro Val
 2545 2550 2555 2560

Ser Gly Leu Arg Ser Ser Phe Thr Val Leu Leu Leu Leu Ser Ala Thr
 2565 2570 2575

Trp Leu Leu Ala Leu Leu Ser Val Asn Ser Asp Thr Leu Leu Phe His
 2580 2585 2590

Tyr Leu Phe Ala Ala Cys Asn Cys Val Gln Gly Pro Phe Ile Phe Leu
 2595 2600 2605

Ser Tyr Val Val Leu Ser Lys Glu Val Arg Lys Ala Leu Lys Phe Ala
 2610 2615 2620

Cys Ser Arg Lys Pro Ser Pro Asp Pro Ala Leu Thr Thr Lys Tyr Thr
 2625 2630 2635 2640

Leu Thr Ser Ser Tyr Asn Cys Pro Ser Pro Tyr Ala Asp Gly Arg Leu
 2645 2650 2655

Tyr Gln Pro Tyr Gly Asp Ser Ala Gly Ser Leu His Ser Ala Ser Arg
 2660 2665 2670

Ser Gly Lys Ser Gln Pro Ser Tyr Ile Pro Phe Leu Leu Arg Glu Glu
2675 2680 2685

Ser Thr Leu Asn Pro Gly Gln Val Pro Pro Gly Leu Gly Asp Pro Ser
2690 2695 2700

Gly Leu Phe Leu Glu Gly Gln Ala Gln Gln His Asp Pro Asp Thr Asp
2705 2710 2715 2720

Ser Asp Ser Asp Leu Ser Leu Glu Asp Asp Gln Ser Gly Ser Tyr Ala
2725 2730 2735

Ser Thr His Ser Ser Asp Ser Glu Glu Glu Glu Glu Glu Ala Ala Phe
2740 2745 2750

Pro Gly Glu Gln Gly Trp Asp Ser Cys Leu Gly Pro Gly Ala Glu Arg
2755 2760 2765

Leu Pro Leu His Ser Thr Pro Lys Asp Gly Gly Pro Gly Ser Gly Lys
2770 2775 2780

Val Pro Trp Leu Gly Asp Phe Gly Thr Thr Thr Lys Glu Asn Ser Gly
2785 2790 2795 2800

Ser Gly Ala Leu Glu Glu Arg Pro Arg Glu Asn Gly Asp Ala Leu Thr
2805 2810 2815

Arg Glu Gly Ser Leu Gly Pro Leu Pro Gly Pro Ser Thr Gln Pro His
2820 2825 2830

Lys Gly Ile Leu Lys Lys Lys Cys Leu Pro Thr Ile Ser Glu Lys Ser
2835 2840 2845

Ser Leu Leu Arg Leu Pro Leu Glu Gln Gly Thr Gly Ser Ser Arg Gly
2850 2855 2860

Ser Ser Ile Ser Glu Gly Ser Arg His Gly Pro Pro Pro Arg Pro Pro
2865 2870 2875 2880

Pro Arg Gln Ser Leu Gln Glu Gln Leu Asn Gly Val Met Pro Val Ala
2885 2890 2895

Met Ser Ile Asn Ala Gly Thr Val Asp Glu Asp Ser Ser Gly Ser Glu
2900 2905 2910

Phe Leu Phe Phe Asn Phe Leu His
2915 2920

<210> 72
<211> 107
<212> PRT
<213> Homo sapiens

<400> 72
Tyr Ser Ala Ser Val Pro Glu Asn Ala Pro Val Gly Thr Glu Val Leu
1 5 10 15

100-303030

```
<210> 75
<211> 107
<212> PRT
<213> Homo sapiens
```

```

<400> 75
Tyr Ser Ala Ser Val Pro Glu Asn Ala Pro Val Gly Thr Glu Val Leu
  1                               5                               10                               15

Thr Val Thr Ala Thr Asp Ala Asp Asp Pro Leu Gly Pro Asn Gly Arg
          20                               25                               30

Ile Arg Tyr Ser Ile Leu Gly Gly Asn Pro Gly Gly Trp Phe Arg Ile
          35                               40                               45

Asp Pro Asp Thr Gly Asp Asn Glu Gly Ile Ile Ser Thr Thr Lys Pro
          50                               55                               60

Leu Asp Arg Glu Glu Ile Phe Asn Gly Glu Tyr Glu Leu Thr Val Glu
          65                               70                               75                               80

Ala Thr Asp Ala Asp Pro Leu Ser Ala Ala Gly Gly Ser Pro Pro Leu
          85                               90                               95

Ser Gly Thr Ala Thr Val Thr Ile Thr Val Leu
          100                               105

```

```
<210> 76
<211> 107
<212> PRT
<213> Homo sapiens
```

<400> 76
Tyr Ser Ala Ser Val Pro Glu Asn Ala Pro Val Gly Thr Glu Val Leu
1 5 10 15
Thr Val Thr Ala Thr Asp Ala Asp Asp Pro Leu Gly Pro Asn Gly Arg

20 25 30
 Ile Arg Tyr Ser Ile Leu Gly Gly Asn Pro Gly Gly Trp Phe Arg Ile
 35 40 45
 Asp Pro Asp Thr Gly Asp Asn Glu Gly Ile Ile Ser Thr Thr Lys Pro
 50 55 60
 Leu Asp Arg Glu Glu Ile Phe Asn Gly Glu Tyr Glu Leu Thr Val Glu
 65 70 75 80
 Ala Thr Asp Ala Asp Pro Leu Ser Ala Ala Gly Gly Ser Pro Pro Leu
 85 90 95
 Ser Gly Thr Ala Thr Val Thr Ile Thr Val Leu
 100 105

<210> 77
 <211> 107
 <212> PRT
 <213> Homo sapiens

<400> 77
 Tyr Ser Ala Ser Val Pro Glu Asn Ala Pro Val Gly Thr Glu Val Leu
 1 5 10 15
 Thr Val Thr Ala Thr Asp Ala Asp Asp Pro Leu Gly Pro Asn Gly Arg
 20 25 30
 Ile Arg Tyr Ser Ile Leu Gly Gly Asn Pro Gly Gly Trp Phe Arg Ile
 35 40 45
 Asp Pro Asp Thr Gly Asp Asn Glu Gly Ile Ile Ser Thr Thr Lys Pro
 50 55 60
 Leu Asp Arg Glu Glu Ile Phe Asn Gly Glu Tyr Glu Leu Thr Val Glu
 65 70 75 80
 Ala Thr Asp Ala Asp Pro Leu Ser Ala Ala Gly Gly Ser Pro Pro Leu
 85 90 95
 Ser Gly Thr Ala Thr Val Thr Ile Thr Val Leu
 100 105

<210> 78
 <211> 107
 <212> PRT
 <213> Homo sapiens

<400> 78
 Tyr Ser Ala Ser Val Pro Glu Asn Ala Pro Val Gly Thr Glu Val Leu
 1 5 10 15
 Thr Val Thr Ala Thr Asp Ala Asp Asp Pro Leu Gly Pro Asn Gly Arg
 20 25 30

Ile Arg Tyr Ser Ile Leu Gly Gly Asn Pro Gly Gly Trp Phe Arg Ile
 35 40 45
 Asp Pro Asp Thr Gly Asp Asn Glu Gly Ile Ile Ser Thr Thr Lys Pro
 50 55 60
 Leu Asp Arg Glu Glu Ile Phe Asn Gly Glu Tyr Glu Leu Thr Val Glu
 65 70 75 80
 Ala Thr Asp Ala Asp Pro Leu Ser Ala Ala Gly Gly Ser Pro Pro Leu
 85 90 95
 Ser Gly Thr Ala Thr Val Thr Ile Thr Val Leu
 100 105

<210> 79
 <211> 107
 <212> PRT
 <213> Homo sapiens

<400> 79
 Tyr Ser Ala Ser Val Pro Glu Asn Ala Pro Val Gly Thr Glu Val Leu
 1 5 10 15
 Thr Val Thr Ala Thr Asp Ala Asp Asp Pro Leu Gly Pro Asn Gly Arg
 20 25 30
 Ile Arg Tyr Ser Ile Leu Gly Gly Asn Pro Gly Gly Trp Phe Arg Ile
 35 40 45
 Asp Pro Asp Thr Gly Asp Asn Glu Gly Ile Ile Ser Thr Thr Lys Pro
 50 55 60
 Leu Asp Arg Glu Glu Ile Phe Asn Gly Glu Tyr Glu Leu Thr Val Glu
 65 70 75 80
 Ala Thr Asp Ala Asp Pro Leu Ser Ala Ala Gly Gly Ser Pro Pro Leu
 85 90 95
 Ser Gly Thr Ala Thr Val Thr Ile Thr Val Leu
 100 105

<210> 80
 <211> 45
 <212> PRT
 <213> Homo sapiens

<400> 80
 Cys Ala Pro Asn Asn Pro Cys Ser Asn Gly Gly Thr Cys Val Asn Thr
 1 5 10 15
 Pro Gly Gly Ser Ser Asp Asn Phe Gly Gly Tyr Thr Cys Glu Cys Pro
 20 25 30

Pro Gly Asp Tyr Tyr Leu Ser Tyr Thr Gly Lys Arg Cys
35 40 45

<210> 81
<211> 45
<212> PRT
<213> Homo sapiens

<400> 81
Cys Ala Pro Asn Asn Pro Cys Ser Asn Gly Gly Thr Cys Val Asn Thr
1 5 10 15

Pro Gly Gly Ser Ser Asp Asn Phe Gly Gly Tyr Thr Cys Glu Cys Pro
20 25 30

Pro Gly Asp Tyr Tyr Leu Ser Tyr Thr Gly Lys Arg Cys
35 40 45

<210> 82
<211> 77
<212> PRT
<213> Homo sapiens

<400> 82
Phe Arg Thr Thr Glu Pro Ser Gly Leu Leu Leu Gly Tyr Gly Gly
1 5 10 15

Thr Asn Thr Asp Arg Gly Gly Lys Lys Glu Ile Gly Asp Asp Phe Leu
20 25 30

Ala Leu Glu Leu Val Asp Gly Arg Leu Glu Val Ser Tyr Asp Leu Gly
35 40 45

Ser Gly His Arg Leu Arg Pro Ala Val Val Arg Ser Gly Asp Arg Val
50 55 60

Leu Asn Asp Gly Lys Trp His Arg Val Glu Leu Glu Arg
65 70 75

<210> 83
<211> 45
<212> PRT
<213> Homo sapiens

<400> 83
Cys Ala Pro Asn Asn Pro Cys Ser Asn Gly Gly Thr Cys Val Asn Thr
1 5 10 15

Pro Gly Gly Ser Ser Asp Asn Phe Gly Gly Tyr Thr Cys Glu Cys Pro
20 25 30

Pro Gly Asp Tyr Tyr Leu Ser Tyr Thr Gly Lys Arg Cys
35 40 45

<210> 84
 <211> 161
 <212> PRT
 <213> Homo sapiens

<400> 84
 Phe Arg Thr Thr Glu Pro Ser Gly Leu Leu Leu Gly Tyr Gly Gly
 1 5 10 15
 Thr Asn Thr Asp Arg Gly Gly Lys Lys Glu Ile Gly Asp Asp Phe Leu
 20 25 30
 Ala Leu Glu Leu Val Asp Gly Arg Leu Glu Val Ser Tyr Asp Leu Gly
 35 40 45
 Ser Gly His Arg Leu Arg Pro Ala Val Val Arg Ser Gly Asp Arg Val
 50 55 60
 Leu Asn Asp Gly Lys Trp His Arg Val Glu Leu Glu Arg Asn Gly Arg
 65 70 75 80
 Lys Gly Thr Leu Ser Val Asp Gly Glu Glu Pro Ser Lys Lys Thr Leu
 85 90 95
 Ser Glu Thr Val Val Asp Gly Glu Ser Pro Ser Gly Pro Asp Val Thr
 100 105 110
 Ser Glu Asn Leu Asp Leu Asp Thr Pro Pro Ile Leu Tyr Val Gly Gly
 115 120 125
 Leu Pro Glu Gln Lys Ser Val Lys Arg Arg Leu Ala Ala Ile Ser Thr
 130 135 140
 Ser Phe Lys Gly Cys Ile Arg Asp Val Ser Ile Asn Gly Lys Pro Leu
 145 150 155 160
 Asp

<210> 85
 <211> 45
 <212> PRT
 <213> Homo sapiens

<400> 85
 Cys Ala Pro Asn Asn Pro Cys Ser Asn Gly Gly Thr Cys Val Asn Thr
 1 5 10 15
 Pro Gly Gly Ser Ser Asp Asn Phe Gly Gly Tyr Thr Cys Glu Cys Pro
 20 25 30
 Pro Gly Asp Tyr Tyr Leu Ser Tyr Thr Gly Lys Arg Cys
 35 40 45

<210> 86
 <211> 45
 <212> PRT
 <213> Homo sapiens

<400> 86
 Cys Ala Pro Asn Asn Pro Cys Ser Asn Gly Gly Thr Cys Val Asn Thr
 1 5 10 15
 Pro Gly Gly Ser Ser Asp Asn Phe Gly Gly Trp Thr Cys Glu Cys Pro
 20 25 30
 Pro Gly Asp Tyr Tyr Leu Ser Tyr Thr Gly Lys Arg Cys
 35 40 45

<210> 87
 <211> 79
 <212> PRT
 <213> Homo sapiens

<400> 87
 Gly Leu Tyr Cys Pro Ala Thr Trp Asp Gly Ile Leu Cys Trp Pro Arg
 1 5 10 15
 Thr Pro Ala Gly Thr Leu Val Val Val Pro Cys Pro Asp Tyr Phe Ser
 20 25 30
 Gly Phe Asn Tyr Asp Thr Thr Gly Glu Asp Phe Ser Asn Gly Asn Ala
 35 40 45
 Ser Arg Asn Cys Thr Glu Asn Gly Trp Trp Glu Arg His Pro Asn Ser
 50 55 60
 Asn Trp Pro Trp Pro Asp Tyr Thr Asn Cys Thr Ser Pro Glu Tyr
 65 70 75

<210> 88
 <211> 54
 <212> PRT
 <213> Homo sapiens

<400> 88
 Ser Asn Pro Ile Cys Val Phe Trp Asp Glu Ser Glu Leu Ser Leu Gly
 1 5 10 15
 Val Trp Ser Thr Asp Arg Gly Cys Glu Leu Val Glu Thr Ser Lys Pro
 20 25 30
 Ser His Thr Thr Cys Ser Cys Asn His Leu Thr Ser Phe Ala Val Leu
 35 40 45
 Met Asp Val Ser Pro Asn
 50

Val

<210> 90

<211> 328

<212> PRT

<213> Homo sapiens

<400> 90

Leu Gly Leu Leu Arg Leu Gly Phe Leu Val Glu Phe Leu Ser Arg Ala
1 5 10 15

Val Ile Ser Gly Phe Met Ala Gly Ala Ala Ile Leu Ile Leu Leu Ser
20 25 30

Gln Leu Lys Gly Leu Leu Gly Leu Ser Asn Leu Phe Thr Arg His Ser
35 40 45

Gly Ile Val Ser Val Leu Arg Ala Leu Phe Asp Leu Val Asp Asn Leu
50 55 60

His Asp Phe Leu Lys Trp Asn Trp Ala Thr Leu Val Ile Gly Ile Ser
65 70 75 80

Phe Leu Ile Phe Leu Leu Ile Ile Lys Leu Leu Pro Asn Pro Lys Lys
85 90 95

Arg Lys Lys Lys Leu Phe Trp Val Pro Ala Pro Ala Pro Leu Val Ala
100 105 110

Val Ile Leu Ala Thr Leu Ile Ser Tyr Leu Phe Asn Arg His Lys Leu
115 120 125

Ala Asp Arg Tyr Gly Val Ser Ile Val Gly Glu Ile Pro Ser Gly Leu
130 135 140

Pro Pro Pro Ser Leu Pro Arg Leu Asn Leu Ser Pro Ser Thr Leu Leu
145 150 155 160

Asp Leu Leu Pro Ile Ala Leu Ala Leu Ala Leu Val Gly Leu Leu Glu
165 170 175

Ser Ile Leu Thr Ala Lys Ser Phe Ala Lys Ile Lys Gly Tyr Lys Ile
180 185 190

Asp Ser Asn Lys Glu Leu Val Ala Gln Gly Ile Ala Asn Ile Val Gly
195 200 205

Ser Leu Phe Gly Gly Tyr Pro Ala Thr Gly Ser Phe Ser Arg Ser Ala
210 215 220

Val Asn Val Lys Ala Gly Ala Lys Thr Gln Leu Ser Gly Ile Val Met
225 230 235 240

Ala Val Val Val Leu Leu Val Leu Leu Phe Leu Thr Pro Leu Leu Glu
245 250 255

Tyr Ile Pro Met Ala Val Leu Ala Ala Ile Ile Ile Val Ala Leu Ile
 260 265 270
 Gly Met Leu Ile Asp Trp Ser Glu Leu Ile Arg Leu Leu Trp Lys Leu
 275 280 285
 Ser Lys Leu Asp Phe Leu Ile Trp Leu Ala Thr Phe Phe Gly Thr Val
 290 295 300
 Phe Val Asp Asn Leu Glu Ile Gly Val Leu Val Gly Val Ala Ile Ser
 305 310 315 320
 Leu Leu Phe Leu Ile Leu Arg Val
 325

<210> 91
 <211> 116
 <212> PRT
 <213> Homo sapiens

<400> 91
 Tyr Ile Glu Ala Glu Thr Ile Pro Gly Ile Glu Val Leu Ile Leu Arg
 1 5 10 15
 Leu Ser Gly Pro Leu Asp Phe Ala Asn Ala Glu Leu Lys Glu Arg Leu
 20 25 30
 Leu Arg Ala Ile Ala Glu Gly Pro Glu Arg Lys Lys Ile Glu Leu Arg
 35 40 45
 His Val Ile Leu Asp Leu Ser Ala Val Ser Phe Ile Asp Ser Ser Gly
 50 55 60
 Leu Gly Ala Leu Leu Glu Leu Tyr Lys Glu Leu Lys Lys Arg Gly Val
 65 70 75 80
 Glu Leu Val Leu Val Gly Pro Ser Pro Glu Val Arg Arg Thr Leu Glu
 85 90 95
 Leu Thr Gly Leu Asp Asp Leu Ile Gly Lys Glu Lys Ile Phe Pro Thr
 100 105 110
 Val Ala Glu Ala
 115

<210> 92
 <211> 461
 <212> PRT
 <213> Homo sapiens

<400> 92
 Met Gln Arg Val Asn Met Ile Met Ala Glu Ser Pro Gly Leu Ile Thr
 1 5 10 15

Ile Cys Leu Leu Gly Tyr Leu Leu Ser Ala Glu Cys Thr Val Phe Leu
 20 25 30
 Asp His Glu Asn Ala Asn Lys Ile Leu Asn Arg Pro Lys Arg Tyr Asn
 35 40 45
 Ser Gly Lys Leu Glu Glu Phe Val Gln Gly Asn Leu Glu Arg Glu Cys
 50 55 60
 Met Glu Glu Lys Cys Ser Phe Glu Glu Ala Arg Glu Val Phe Glu Asn
 65 70 75 80
 Thr Glu Arg Thr Thr Glu Phe Trp Lys Gln Tyr Val Asp Gly Asp Gln
 85 90 95
 Cys Glu Ser Asn Pro Cys Leu Asn Gly Gly Ser Cys Lys Asp Asp Ile
 100 105 110
 Asn Ser Tyr Glu Cys Trp Cys Pro Phe Gly Phe Glu Gly Lys Asn Cys
 115 120 125
 Glu Leu Asp Val Thr Cys Asn Ile Lys Asn Gly Arg Cys Glu Gln Phe
 130 135 140
 Cys Lys Asn Ser Ala Asp Asn Lys Val Val Cys Ser Cys Thr Glu Gly
 145 150 155 160
 Tyr Arg Leu Ala Glu Asn Gln Lys Ser Cys Glu Pro Ala Val Pro Phe
 165 170 175
 Pro Cys Gly Arg Val Ser Val Ser Gln Thr Ser Lys Leu Thr Arg Ala
 180 185 190
 Glu Ala Val Phe Pro Asp Val Asp Tyr Val Asn Ser Thr Glu Ala Glu
 195 200 205
 Thr Ile Leu Asp Asn Ile Thr Gln Ser Thr Gln Ser Phe Asn Asp Phe
 210 215 220
 Thr Arg Val Val Gly Gly Glu Asp Ala Lys Pro Gly Gln Phe Pro Trp
 225 230 235 240
 Gln Val Val Leu Asn Gly Lys Val Asp Ala Phe Cys Gly Gly Ser Ile
 245 250 255
 Val Asn Glu Lys Trp Ile Val Thr Ala Ala His Cys Val Glu Thr Gly
 260 265 270
 Val Lys Ile Thr Val Val Ala Gly Glu His Asn Ile Glu Glu Thr Glu
 275 280 285
 His Thr Glu Gln Lys Arg Asn Val Ile Arg Ile Ile Pro His His Asn
 290 295 300
 Tyr Asn Ala Ala Ile Asn Lys Tyr Asn His Asp Ile Ala Leu Leu Glu
 305 310 315 320

Leu Asp Glu Pro Leu Val Leu Asn Ser Tyr Val Thr Pro Ile Cys Ile
325 330 335

Ala Asp Lys Glu Tyr Thr Asn Ile Phe Leu Lys Phe Gly Ser Gly Tyr
340 345 350

Val Ser Gly Trp Gly Arg Val Phe His Lys Gly Arg Ser Ala Leu Val
355 360 365

Leu Gln Tyr Leu Arg Val Pro Leu Val Asp Arg Ala Thr Cys Leu Arg
370 375 380

Ser Thr Lys Phe Thr Ile Tyr Asn Asn Met Phe Cys Ala Gly Phe His
385 390 395 400

Glu Gly Gly Arg Asp Ser Cys Gln Gly Asp Ser Gly Gly Pro His Val
405 410 415

Thr Glu Val Glu Gly Thr Ser Phe Leu Thr Gly Ile Ile Ser Trp Gly
420 425 430

Glu Glu Cys Ala Met Lys Gly Lys Tyr Gly Ile Tyr Thr Lys Val Ser
435 440 445

Arg Tyr Val Asn Trp Ile Lys Glu Lys Thr Lys Leu Thr
450 455 460

<210> 93

<211> 461

<212> PRT

<213> Homo sapiens

<400> 93

Met Gln Arg Val Asn Met Ile Met Ala Glu Ser Pro Gly Leu Ile Thr
1 5 10 15

Ile Cys Leu Leu Gly Tyr Leu Leu Ser Ala Glu Cys Thr Val Phe Leu
20 25 30

Asp His Glu Asn Ala Asn Lys Ile Leu Asn Arg Pro Lys Arg Tyr Asn
35 40 45

Ser Gly Lys Leu Glu Glu Phe Val Gln Gly Asn Leu Glu Arg Glu Cys
50 55 60

Met Glu Glu Lys Cys Ser Phe Glu Glu Ala Arg Glu Val Phe Glu Asn
65 70 75 80

Thr Glu Arg Thr Thr Glu Phe Trp Lys Gln Tyr Val Asp Gly Asp Gln
85 90 95

Cys Glu Ser Asn Pro Cys Leu Asn Gly Gly Ser Cys Lys Asp Asp Ile
100 105 110

Asn Ser Tyr Glu Cys Trp Cys Pro Phe Gly Phe Glu Gly Lys Asn Cys
115 120 125

Glu Leu Asp Val Thr Cys Asn Ile Lys Asn Gly Arg Cys Glu Gln Phe
130 135 140

Cys Lys Asn Ser Ala Asp Asn Lys Val Val Cys Ser Cys Thr Glu Gly
145 150 155 160

Tyr Arg Leu Ala Glu Asn Gln Lys Ser Cys Glu Pro Ala Val Pro Phe
165 170 175

Pro Cys Gly Arg Val Ser Val Ser Gln Thr Ser Lys Leu Thr Arg Ala
180 185 190

Glu Thr Val Phe Pro Asp Val Asp Tyr Val Asn Ser Thr Glu Ala Glu
195 200 205

Thr Ile Leu Asp Asn Ile Thr Gln Ser Thr Gln Ser Phe Asn Asp Phe
210 215 220

Thr Arg Val Val Gly Gly Glu Asp Ala Lys Pro Gly Gln Phe Pro Trp
225 230 235 240

Gln Val Val Leu Asn Gly Lys Val Asp Ala Phe Cys Gly Gly Ser Ile
245 250 255

Val Asn Glu Lys Trp Ile Val Thr Ala Ala His Cys Val Glu Thr Gly
260 265 270

Val Lys Ile Thr Val Val Ala Gly Glu His Asn Ile Glu Glu Thr Glu
275 280 285

His Thr Glu Gln Lys Arg Asn Val Ile Arg Ile Ile Pro His His Asn
290 295 300

Tyr Asn Ala Ala Ile Asn Lys Tyr Asn His Asp Ile Ala Leu Leu Glu
305 310 315 320

Leu Asp Glu Pro Leu Val Leu Asn Ser Tyr Val Thr Pro Ile Cys Ile
325 330 335

Ala Asp Lys Glu Tyr Thr Asn Ile Phe Leu Lys Phe Gly Ser Gly Tyr
340 345 350

Val Ser Gly Trp Gly Arg Val Phe His Lys Gly Arg Ser Ala Leu Val
355 360 365

Leu Gln Tyr Leu Arg Val Pro Leu Val Asp Arg Ala Thr Cys Leu Arg
370 375 380

Ser Thr Lys Phe Thr Ile Tyr Asn Asn Met Phe Cys Ala Gly Phe His
385 390 395 400

Glu Gly Gly Arg Asp Ser Cys Gln Gly Asp Ser Gly Gly Pro His Val
405 410 415

Thr Glu Val Glu Gly Thr Ser Phe Leu Thr Gly Ile Ile Ser Trp Gly
420 425 430

Glu Glu Cys Ala Met Lys Gly Lys Tyr Gly Ile Tyr Thr Lys Val Ser
435 440 445

Arg Tyr Val Asn Trp Ile Lys Glu Lys Thr Lys Leu Thr
450 455 460

<210> 94

<211> 461

<212> PRT

<213> Pan troglodytes

<400> 94

Met Gln Arg Val Asn Met Ile Met Ala Glu Ser Pro Gly Leu Ile Thr
1 5 10 15

Ile Cys Leu Leu Gly Tyr Leu Leu Ser Ala Glu Cys Thr Val Phe Leu
20 25 30

Asp His Glu Asn Ala Asn Lys Ile Leu Asn Arg Pro Lys Arg Tyr Asn
35 40 45

Ser Gly Lys Leu Glu Glu Phe Val Gln Gly Asn Leu Glu Arg Glu Cys
50 55 60

Met Glu Glu Lys Cys Ser Phe Glu Glu Ala Arg Glu Val Phe Glu Asn
65 70 75 80

Thr Glu Arg Thr Thr Glu Phe Trp Lys Gln Tyr Val Asp Gly Asp Gln
85 90 95

Cys Glu Ser Asn Pro Cys Leu Asn Gly Gly Ser Cys Lys Asp Asp Ile
100 105 110

Asn Ser Tyr Glu Cys Trp Cys Pro Phe Gly Phe Glu Gly Lys Asn Cys
115 120 125

Glu Leu Asp Val Thr Cys Asn Ile Lys Asn Gly Arg Cys Glu Gln Phe
130 135 140

Cys Lys Asn Ser Ala Asp Asn Lys Val Val Cys Ser Cys Thr Glu Gly
145 150 155 160

Tyr Arg Leu Ala Glu Asn Gln Lys Ser Cys Glu Pro Ala Val Pro Phe
165 170 175

Pro Cys Gly Arg Val Ser Val Ser Gln Thr Ser Lys Leu Thr Arg Ala
180 185 190

Glu Thr Val Phe Pro Asp Val Asp Tyr Val Asn Ser Thr Glu Ala Glu
195 200 205

Thr Ile Leu Asp Asn Ile Thr Gln Ser Thr Gln Ser Phe Asn Asp Phe
210 215 220

Thr Arg Val Val Gly Gly Glu Asp Ala Lys Pro Gly Gln Phe Pro Trp

Asn Lys Ile Leu Asn Arg Pro Lys Arg Tyr Asn Ser Gly Lys Leu Glu
 35 40 45
 Glu Phe Val Gln Gly Asn Leu Glu Arg Glu Cys Met Glu Glu Lys Cys
 50 55 60
 Ser Phe Glu Glu Ala Arg Glu Val Phe Glu Asn Thr Glu Arg Thr Thr
 65 70 75 80
 Glu Phe Trp Lys Gln Tyr Val Asp Gly Asp Gln Cys Glu Ser Asn Pro
 85 90 95
 Cys Leu Asn Gly Gly Ser Cys Lys Asp Asp Ile Asn Ser Tyr Glu Cys
 100 105 110
 Trp Cys Pro Phe Gly Phe Glu Gly Lys Asn Cys Glu Leu Asp Val Thr
 115 120 125
 Cys Asn Ile Lys Asn Gly Arg Cys Glu Gln Phe Cys Lys Asn Ser Ala
 130 135 140
 Asp Asn Lys Val Val Cys Ser Cys Thr Glu Gly Tyr Arg Leu Ala Glu
 145 150 155 160
 Asn Gln Lys Ser Cys Glu Pro Ala Val Pro Phe Pro Cys Gly Arg Val
 165 170 175
 Ser Val Ser Gln Thr Ser Lys Leu Thr Arg Ala Glu Thr Val Phe Pro
 180 185 190
 Asp Val Asp Tyr Val Asn Ser Thr Glu Ala Glu Thr Ile Leu Asp Asn
 195 200 205
 Ile Thr Gln Ser Thr Gln Ser Phe Asn Asp Phe Thr Arg Val Val Gly
 210 215 220
 Gly Glu Asp Ala Lys Pro Gly Gln Phe Pro Trp Gln Val Val Leu Asn
 225 230 235 240
 Gly Lys Val Asp Ala Phe Cys Gly Gly Ser Ile Val Asn Glu Lys Trp
 245 250 255
 Ile Val Thr Ala Ala His Cys Val Glu Thr Gly Val Lys Ile Thr Val
 260 265 270
 Val Ala Gly Glu His Asn Ile Glu Glu Thr Glu His Thr Glu Gln Lys
 275 280 285
 Arg Asn Val Ile Arg Ile Ile Pro His His Asn Tyr Asn Ala Ala Ile
 290 295 300
 Asn Lys Tyr Asn His Asp Ile Ala Leu Leu Glu Leu Asp Glu Pro Leu
 305 310 315 320
 Val Leu Asn Ser Tyr Val Thr Pro Ile Cys Ile Ala Asp Lys Glu Tyr
 325 330 335

1106654 10352

```
<210> 96
<211> 456
<212> PRT
<213> Homo sapiens
```

```

<400> 96
Met Ile Met Ala Glu Ser Pro Gly Leu Ile Thr Ile Cys Leu Leu Gly
  1              5              10              15

Tyr Leu Leu Ser Ala Glu Cys Thr Val Phe Leu Asp His Glu Asn Ala
      20              25              30

Asn Lys Ile Leu Asn Arg Pro Lys Arg Tyr Asn Ser Gly Lys Leu Glu
      35              40              45

Glu Phe Val Gln Gly Asn Leu Glu Arg Glu Cys Met Glu Glu Lys Cys
      50              55              60

Ser Phe Glu Glu Ala Arg Glu Val Phe Glu Asn Thr Glu Arg Thr Thr
      65              70              75              80

Glu Phe Trp Lys Gln Tyr Val Asp Gly Asp Gln Cys Glu Ser Asn Pro
      85              90              95

Cys Leu Asn Gly Gly Ser Cys Lys Asp Asp Ile Asn Ser Tyr Glu Cys
      100             105             110

Trp Cys Pro Phe Gly Phe Glu Gly Lys Asn Cys Glu Leu Asp Val Thr
      115             120             125

Cys Asn Ile Lys Asn Gly Thr Cys Glu Gln Phe Cys Lys Asn Ser Ala
      130             135             140

```

Asp Asn Lys Val Val Cys Ser Cys Thr Glu Gly Tyr Arg Leu Ala Glu
 145 150 155 160
 Asn Gln Lys Ser Cys Glu Pro Ala Val Pro Phe Pro Cys Gly Arg Val
 165 170 175
 Ser Val Ser Gln Thr Ser Lys Leu Thr Arg Ala Glu Ala Val Phe Pro
 180 185 190
 Asp Val Asp Tyr Val Asn Ser Thr Glu Ala Glu Thr Ile Leu Asp Asn
 195 200 205
 Ile Thr Gln Ser Thr Gln Ser Phe Asn Asp Phe Thr Arg Val Val Gly
 210 215 220
 Gly Glu Asp Ala Lys Pro Gly Gln Phe Pro Trp Gln Val Val Leu Asn
 225 230 235 240
 Gly Lys Val Asp Ala Phe Cys Gly Gly Ser Ile Val Asn Glu Lys Trp
 245 250 255
 Ile Val Thr Ala Ala His Cys Val Glu Thr Gly Val Lys Ile Thr Val
 260 265 270
 Val Ala Gly Glu His Asn Ile Glu Glu Thr Glu His Thr Glu Gln Lys
 275 280 285
 Arg Asn Val Ile Arg Ile Ile Pro His His Asn Tyr Asn Ala Ala Ile
 290 295 300
 Asn Lys Tyr Asn His Asp Ile Ala Leu Leu Glu Leu Asp Glu Pro Leu
 305 310 315 320
 Val Leu Asn Ser Tyr Val Thr Pro Ile Cys Ile Ala Asp Lys Glu Tyr
 325 330 335
 Thr Asn Ile Phe Leu Lys Phe Gly Ser Gly Tyr Val Ser Gly Trp Gly
 340 345 350
 Arg Val Phe His Lys Gly Arg Ser Ala Leu Val Leu Gln Tyr Leu Arg
 355 360 365
 Val Pro Leu Val Asp Arg Ala Thr Cys Leu Arg Ser Thr Lys Phe Thr
 370 375 380
 Ile Tyr Asn Asn Met Phe Cys Ala Gly Leu His Glu Gly Ala Arg Asp
 385 390 395 400
 Ser Cys Gln Gly Asp Ser Gly Gly Pro His Val Thr Glu Val Glu Gly
 405 410 415
 Thr Ser Phe Leu Thr Gly Ile Ile Ser Trp Gly Glu Glu Cys Ala Met
 420 425 430
 Lys Gly Lys Tyr Gly Ile Tyr Thr Lys Val Ser Arg Tyr Val Asn Trp
 435 440 445

Ile Lys Glu Lys Thr Lys Leu Thr
450 455

<210> 97
<211> 42
<212> PRT
<213> Homo sapiens

<400> 97
Leu Glu Glu Leu Arg Lys Gly Asn Leu Glu Arg Glu Cys Leu Glu Glu
1 5 10 15

Val Cys Glu Leu Glu Glu Ala Arg Glu Ile Phe Glu Asp Thr Glu Gly
20 25 30

Thr Gln Glu Phe Trp Arg Lys Tyr Tyr Asp
35 40

<210> 98
<211> 45
<212> PRT
<213> Homo sapiens

<400> 98
Cys Ala Pro Asn Asn Pro Cys Ser Asn Gly Gly Thr Cys Val Asn Thr
1 5 10 15

Pro Gly Gly Ser Ser Asp Asn Phe Gly Gly Tyr Thr Cys Glu Cys Pro
20 25 30

Pro Gly Asp Tyr Tyr Leu Ser Tyr Thr Gly Lys Arg Cys
35 40 45

<210> 99
<211> 56
<212> PRT
<213> Homo sapiens

<400> 99
Cys Pro Ser Gly Gln Val Glu Val Asn Gly Glu Cys Val Lys Lys Val
1 5 10 15

Ala Ile Gly Glu Thr Gly Cys Leu Ala Ser Glu Gln Cys Pro Gly Arg
20 25 30

Trp Pro Gly Ser Gln Cys Ile Asp Gly Met Cys Gln Cys Pro Glu Gly
35 40 45

Phe Thr Ala Val Asn Gly Val Cys
50 55

<210> 100

<211> 259

<212> PRT

<213> Homo sapiens

<400> 100

Ile Val Gly Gly Arg Glu Ala Gln Pro Gly Ser Phe Gly Ser Pro Trp
1 5 10 15

Gln Val Ser Leu Gln Val Arg Ser Gly Gly Gly Ser Arg Lys His Phe
20 25 30

Cys Gly Gly Ser Leu Ile Ser Glu Asn Trp Val Leu Thr Ala Ala His
35 40 45

Cys Val Ser Gly Ala Ala Ser Ala Pro Ala Ser Ser Val Arg Val Ser
50 55 60

Leu Ser Val Arg Leu Gly Glu His Asn Leu Ser Leu Thr Glu Gly Thr
65 70 75 80

Glu Gln Lys Phe Asp Val Lys Lys Thr Ile Ile Val His Pro Asn Tyr
85 90 95

Asn Pro Asp Thr Leu Asp Asn Gly Ala Tyr Asp Asn Asp Ile Ala Leu
100 105 110

Leu Lys Leu Lys Ser Pro Gly Val Thr Leu Gly Asp Thr Val Arg Pro
115 120 125

Ile Cys Leu Pro Ser Ala Ser Ser Asp Leu Pro Val Gly Thr Thr Cys
130 135 140

Thr Val Ser Gly Trp Gly Arg Arg Pro Thr Lys Asn Leu Gly Leu Ser
145 150 155 160

Asp Thr Leu Gln Glu Val Val Val Pro Val Val Ser Arg Glu Thr Cys
165 170 175

Arg Ser Ala Tyr Glu Tyr Gly Gly Thr Asp Asp Lys Val Glu Phe Val
180 185 190

Thr Asp Asn Met Ile Cys Ala Gly Ala Leu Gly Gly Lys Asp Ala Cys
195 200 205

Gln Gly Asp Ser Gly Gly Pro Leu Val Cys Ser Asp Gly Asn Arg Asp
210 215 220

Gly Arg Trp Glu Leu Val Gly Ile Val Ser Trp Gly Ser Tyr Gly Cys
225 230 235 240

Ala Arg Gly Asn Lys Pro Gly Val Tyr Thr Arg Val Ser Ser Tyr Leu
245 250 255

Asp Trp Ile

<210> 101
 <211> 312
 <212> PRT
 <213> Homo sapiens

<400> 101

Met	Arg	Met	Leu	Leu	Ala	Leu	Leu	Ala	Leu	Ser	Ala	Ala	Arg	Pro	Ser
1			5						10					15	
Ala	Ser	Ala	Glu	Ser	His	Trp	Cys	Tyr	Glu	Val	Gln	Ala	Glu	Ser	Ser
			20					25					30		
Asn	Tyr	Pro	Cys	Leu	Val	Pro	Val	Lys	Trp	Gly	Gly	Asn	Cys	Gln	Lys
		35					40					45			
Asp	Arg	Gln	Ser	Pro	Ile	Asn	Ile	Val	Thr	Thr	Lys	Ala	Lys	Val	Asp
	50					55					60				
Lys	Lys	Leu	Gly	Arg	Phe	Phe	Phe	Ser	Gly	Tyr	Asp	Lys	Lys	Gln	Thr
65					70					75					80
Trp	Thr	Val	Gln	Asn	Asn	Gly	His	Ser	Val	Met	Met	Leu	Leu	Glu	Asn
				85					90					95	
Lys	Ala	Ser	Ile	Ser	Gly	Gly	Gly	Leu	Pro	Ala	Pro	Tyr	Gln	Ala	Lys
			100					105					110		
Gln	Leu	His	Leu	His	Trp	Ser	Asp	Leu	Pro	Tyr	Lys	Gly	Ser	Glu	His
		115					120					125			
Ser	Leu	Asp	Gly	Glu	His	Phe	Ala	Met	Glu	Met	His	Ile	Val	His	Glu
	130					135					140				
Lys	Glu	Lys	Gly	Thr	Ser	Arg	Asn	Val	Lys	Glu	Ala	Gln	Asp	Pro	Glu
145					150					155					160
Asp	Glu	Ile	Ala	Val	Leu	Ala	Phe	Leu	Val	Glu	Ala	Gly	Thr	Gln	Val
			165					170						175	
Asn	Glu	Gly	Phe	Gln	Pro	Leu	Val	Glu	Ala	Leu	Ser	Asn	Ile	Pro	Lys
			180					185					190		
Pro	Glu	Met	Ser	Thr	Thr	Met	Ala	Glu	Ser	Ser	Leu	Leu	Asp	Leu	Leu
		195					200					205			
Pro	Lys	Glu	Glu	Lys	Leu	Arg	His	Tyr	Phe	Arg	Tyr	Leu	Gly	Ser	Leu
	210					215					220				
Thr	Thr	Pro	Thr	Cys	Asp	Glu	Lys	Val	Val	Trp	Thr	Val	Phe	Arg	Glu
225					230					235					240
Pro	Ile	Gln	Leu	His	Arg	Glu	Gln	Ile	Leu	Ala	Phe	Ser	Gln	Lys	Leu
			245					250						255	
Tyr	Tyr	Asp	Lys	Glu	Gln	Thr	Val	Ser	Met	Lys	Asp	Asn	Val	Arg	Pro
			260					265					270		

Leu Gln Gln Leu Gly Gln Arg Thr Val Ile Lys Ser Gly Ala Pro Gly
275 280 285

Arg Pro Leu Pro Trp Ala Leu Pro Ala Leu Leu Gly Pro Met Leu Ala
290 295 300

Cys Leu Leu Ala Gly Phe Leu Arg
305 310

<210> 102

<211> 312

<212> PRT

<213> Bos taurus

<400> 102

Met Arg Leu Leu Leu Ala Leu Leu Val Leu Ala Ala Ala Pro Pro Gln
1 5 10 15

Ala Arg Ala Ala Ser His Trp Cys Tyr Gln Ile Gln Val Lys Pro Ser
20 25 30

Asn Tyr Thr Cys Leu Glu Pro Asp Glu Trp Glu Gly Ser Cys Gln Asn
35 40 45

Asn Arg Gln Ser Pro Val Asn Ile Val Thr Ala Lys Thr Gln Leu Asp
50 55 60

Pro Asn Leu Gly Arg Phe Ser Phe Ser Gly Tyr Asn Met Lys His Gln
65 70 75 80

Trp Val Val Gln Asn Asn Gly His Thr Val Met Val Leu Leu Glu Asn
85 90 95

Lys Pro Ser Ile Ala Gly Gly Gly Leu Ser Thr Arg Tyr Gln Ala Thr
100 105 110

Gln Leu His Leu His Trp Ser Arg Ala Met Asp Arg Gly Ser Glu His
115 120 125

Ser Phe Asp Gly Glu Arg Phe Ala Met Glu Met His Ile Val His Glu
130 135 140

Lys Glu Lys Gly Leu Ser Gly Asn Ala Ser Gln Asn Gln Phe Ala Glu
145 150 155 160

Asp Glu Ile Ala Val Leu Ala Phe Met Val Glu Asp Gly Ser Lys Asn
165 170 175

Val Asn Phe Gln Pro Leu Val Glu Ala Leu Ser Asp Ile Pro Arg Pro
180 185 190

Asn Met Asn Thr Thr Met Lys Glu Gly Val Ser Leu Phe Asp Leu Leu
195 200 205

Pro Glu Glu Glu Ser Leu Arg His Tyr Phe Arg Tyr Leu Gly Ser Leu
210 215 220

Thr Thr Pro Thr Cys Asp Glu Lys Val Val Trp Thr Val Phe Gln Lys
 225 230 235 240
 Pro Ile Gln Leu His Arg Asp Gln Ile Leu Ala Phe Ser Gln Lys Leu
 245 250 255
 Phe Tyr Asp Asp Gln Gln Lys Val Asn Met Thr Asp Asn Val Arg Pro
 260 265 270
 Val Gln Ser Leu Gly Gln Arg Gln Val Phe Arg Ser Gly Ala Pro Gly
 275 280 285
 Leu Leu Leu Ala Gln Pro Leu Pro Thr Leu Leu Ala Pro Val Leu Ala
 290 295 300
 Cys Leu Thr Val Gly Phe Leu Arg
 305 310

<210> 103
 <211> 308
 <212> PRT
 <213> Oryctolagus cuniculus

<400> 103
 Met Gln Leu Leu Phe Ala Leu Leu Ala Leu Gly Ala Leu Arg Pro Leu
 1 5 10 15
 Ala Gly Glu Glu Leu His Trp Cys Tyr Glu Ile Gln Ala Ser Asn Tyr
 20 25 30
 Ser Cys Leu Gly Pro Asp Lys Trp Gln Glu Asp Cys Gln Lys Ser Arg
 35 40 45
 Gln Ser Pro Ile Asn Ile Val Thr Thr Lys Ala Glu Val Asp His Ser
 50 55 60
 Leu Gly Arg Phe His Phe Ser Gly Tyr Asp Gln Arg Glu Ala Arg Leu
 65 70 75 80
 Val Glu Asn Asn Gly His Ser Val Met Val Ser Leu Gly Asp Glu Ile
 85 90 95
 Ser Ile Ser Gly Gly Gly Leu Pro Ala Arg Tyr Arg Ala Thr Gln Leu
 100 105 110
 His Leu His Trp Ser Gln Glu Leu Asp Arg Gly Ser Glu His Ser Leu
 115 120 125
 Asp Gly Glu Arg Ser Ala Met Glu Met His Ile Val His Gln Lys Glu
 130 135 140
 Thr Gly Thr Ser Gly Asn Glu Val Gln Asp Ser Asp Asp Ser Ile Ala
 145 150 155 160
 Val Leu Ala Phe Leu Val Glu Ala Gly Pro Thr Met Asn Glu Gly Phe

165 170 175

Gln Pro Leu Val Thr Ala Leu Ser Ala Ile Ser Ile Pro Gly Thr Asn
180 185 190

Thr Thr Met Ala Pro Ser Ser Leu Trp Asp Leu Leu Pro Ala Glu Glu
195 200 205

Glu Leu Arg His Tyr Phe Arg Tyr Met Gly Ser Leu Thr Thr Pro Ala
210 215 220

Cys Ser Glu Thr Val Val Trp Thr Val Phe Gln Glu Pro Ile Arg Leu
225 230 235 240

His Arg Asp Gln Ile Leu Glu Phe Ser Ser Lys Leu Tyr Tyr Asp Gln
245 250 255

Glu Arg Lys Met Asn Met Lys Asp Asn Val Arg Pro Leu Gln Arg Leu
260 265 270

Gly Asp Arg Ser Val Phe Lys Ser Gln Ala Ala Gly Gln Leu Leu Pro
275 280 285

Leu Pro Leu Pro Thr Leu Leu Val Pro Thr Leu Ala Cys Val Met Ala
290 295 300

Gly Leu Leu Arg
305

<210> 104
<211> 309
<212> PRT
<213> Rattus norvegicus

<400> 104

Met Gln Leu Leu Leu Ala Leu Leu Ala Leu Ala Tyr Val Ala Pro Ser
1 5 10 15

Thr Glu Asp Ser His Trp Cys Tyr Glu Ile Gln Ala Lys Glu Pro Asn
20 25 30

Ser His Cys Ser Gly Pro Glu Gln Trp Thr Gly Asp Cys Lys Lys Asn
35 40 45

Gln Gln Ser Pro Ile Asn Ile Val Thr Ser Lys Thr Lys Leu Asn Pro
50 55 60

Ser Leu Thr Pro Phe Thr Phe Val Gly Tyr Asp Gln Lys Lys Lys Trp
65 70 75 80

Glu Val Lys Asn Asn Gln His Ser Val Glu Met Ser Leu Gly Glu Asp
85 90 95

Ile Tyr Ile Phe Gly Gly Asp Leu Pro Thr Gln Tyr Lys Ala Ile Gln
100 105 110

Leu His Leu His Trp Ser Glu Glu Ser Asn Lys Gly Ser Glu His Ser
 115 120 125

Ile Asp Gly Lys His Phe Ala Met Glu Met His Val Val His Lys Lys
 130 135 140

Met Thr Thr Gly Asp Lys Val Gln Asp Ser Asp Ser Lys Asp Lys Ile
 145 150 155 160

Ala Val Leu Ala Phe Met Val Glu Val Gly Asn Glu Val Asn Glu Gly
 165 170 175

Phe Gln Pro Leu Val Glu Ala Leu Ser Arg Leu Ser Lys Pro Phe Thr
 180 185 190

Asn Ser Thr Val Ser Glu Ser Cys Leu Gln Asp Met Leu Pro Glu Lys
 195 200 205

Lys Lys Leu Ser Ala Tyr Phe Arg Tyr Gln Gly Ser Leu Thr Thr Pro
 210 215 220

Gly Cys Asp Glu Thr Val Ile Trp Thr Val Phe Glu Glu Pro Ile Lys
 225 230 235 240

Ile His Lys Asp Gln Phe Leu Glu Phe Ser Lys Lys Leu Tyr Tyr Asp
 245 250 255

Gln Glu Gln Lys Leu Asn Met Lys Asp Asn Val Arg Pro Leu Gln Pro
 260 265 270

Leu Gly Asn Arg Gln Val Phe Arg Ser His Ala Ser Gly Arg Leu Leu
 275 280 285

Ser Leu Pro Leu Pro Thr Leu Leu Val Pro Thr Leu Thr Cys Leu Val
 290 295 300

Ala Ser Phe Leu His
 305

<210> 105
 <211> 305
 <212> PRT
 <213> Mus musculus

<400> 105
 Met Gln Leu Leu Leu Ala Leu Leu Ala Leu Ala Tyr Val Ala Pro Ser
 1 5 10 15

Thr Glu Asp Ser Gly Trp Cys Tyr Glu Ile Gln Thr Lys Asp Pro Arg
 20 25 30

Ser Ser Cys Leu Gly Pro Glu Lys Trp Pro Gly Ala Cys Lys Glu Asn
 35 40 45

Gln Gln Ser Pro Ile Asn Ile Val Thr Ala Arg Thr Lys Val Asn Pro
 50 55 60

100-338614-3019

1				5					10					15			
Val	Leu	Trp	His	Lys	Leu	Tyr	Pro	Ile	Ala	Asn	Gly	Gly	Asn	Cys	Gln		
			20					25					30				
Gly	Glu	Arg	Gln	Ser	Pro	Ile	Asn	Ile	Gln	Thr	Lys	Glu	Ala	Lys	Tyr		
		35					40					45					
Asp	Pro	Ser	Leu	Lys	Pro	Leu	Ser	Leu	Ser	Tyr	Asp	Ala	Ala	Thr	Ala		
	50					55					60						
Lys	Glu	Phe	Glu	Ile	Val	Asn	Asn	Gly	His	Ser	Phe	Gln	Val	Glu	Phe		
65					70					75					80		
Asp	Asp	Ser	Asp	Asp	Lys	Ser	Val	Leu	Ser	Gly	Gly	Pro	Leu	Pro	Ala		
				85					90					95			
Gly	His	Pro	Tyr	Arg	Leu	Lys	Gln	Phe	His	Phe	His	Trp	Gly	Gly	Ala		
			100					105					110				
Ser	Ser	Asp	Asp	Gln	Gly	Ser	Glu	His	Thr	Val	Asp	Gly	Lys	Lys	Tyr		
		115					120					125					
Ala	Ala	Glu	Leu	His	Leu	Val	His	Trp	Asn	Ser	Thr	Lys	Tyr	Gly	Ser		
	130					135						140					
Tyr	Lys	Glu	Ala	Val	Ser	Lys	Pro	Asp	Gly	Leu	Ala	Val	Leu	Gly	Val		
145					150					155					160		
Phe	Leu	Lys	Val	Gly	Asp	Tyr	Gln	Glu	Asn								
				165					170								

```
<210> 107
<211> 121
<212> PRT
<213> Homo sapiens
```

```

<400> 107
Lys Val Gly Asp Tyr Gln Glu Asn Pro Gly Leu Gln Lys Val Val Asp
  1              5              10              15
Ala Leu Ser Ser Ile Lys Thr Lys Gly Lys Ser Ala Thr Phe Thr Asn
          20              25              30
Phe Asp Pro Ser Thr Leu Leu Pro Ser Glu Lys Leu Arg Asp Tyr Trp
          35              40              45
Thr Tyr Pro Gly Ser Leu Thr Thr Pro Pro Leu Thr Glu Ser Val Thr
          50              55              60
Trp Ile Val Leu Lys Glu Pro Ile Ser Val Ser Ser Glu Gln Leu Leu
  65              70              75              80
Lys Phe Arg Ser Leu Leu Phe Asn Ala Glu Gly Glu Glu Glu Val Pro
          85              90              95

```

Gly Cys Asp Gly Ile Met Val Asp Asn Tyr Arg Pro Thr Gln Pro Leu
100 105 110

Lys Gly Arg Val Val Arg Ala Ser Phe
115 120

<210> 108

<211> 779

<212> PRT

<213> Homo sapiens

<400> 108

Gly Met Lys Pro Phe Gln Leu Asp Leu Leu Phe Val Cys Phe Phe Leu
1 5 10 15

Phe Ser Gln Glu Leu Gly Leu Gln Lys Arg Gly Cys Cys Leu Val Leu
20 25 30

Gly Tyr Met Ala Lys Asp Lys Phe Arg Arg Met Asn Glu Gly Gln Val
35 40 45

Tyr Ser Phe Ser Gln Gln Pro Gln Asp Gln Val Val Val Ser Gly Gln
50 55 60

Pro Val Thr Leu Leu Cys Ala Ile Pro Glu Tyr Asp Gly Phe Val Leu
65 70 75 80

Trp Ile Lys Asp Gly Leu Ala Leu Gly Val Gly Arg Asp Leu Ser Ser
85 90 95

Tyr Pro Gln Tyr Leu Val Val Gly Asn His Leu Ser Gly Glu His His
100 105 110

Leu Lys Ile Leu Arg Ala Glu Leu Gln Asp Asp Ala Val Tyr Glu Cys
115 120 125

Gln Ala Ile Gln Ala Ala Ile Arg Ser Arg Pro Ala Arg Leu Thr Val
130 135 140

Leu Val Pro Pro Asp Asp Pro Val Ile Leu Gly Gly Pro Val Ile Ser
145 150 155 160

Leu Arg Ala Gly Asp Pro Leu Asn Leu Thr Cys His Ala Asp Asn Ala
165 170 175

Lys Pro Ala Ala Ser Ile Ile Trp Leu Arg Lys Gly Glu Val Ile Asn
180 185 190

Gly Ala Thr Tyr Ser Lys Thr Leu Leu Arg Asp Gly Lys Arg Glu Ser
195 200 205

Ile Val Ser Thr Leu Phe Ile Ser Pro Gly Asp Val Glu Asn Gly Gln
210 215 220

Ser Ile Val Cys Arg Ala Thr Asn Lys Ala Ile Pro Gly Gly Lys Glu
225 230 235 240

Thr Ser Val Thr Ile Asp Ile Gln His Pro Pro Leu Val Asn Leu Ser
245 250 255

Val Glu Pro Gln Pro Val Leu Glu Asp Asn Val Val Thr Phe His Cys
260 265 270

Ser Ala Lys Ala Asn Pro Ala Val Thr Gln Tyr Arg Trp Ala Lys Arg
275 280 285

Gly Gln Ile Ile Lys Glu Ala Ser Gly Glu Val Tyr Arg Thr Thr Val
290 295 300

Asp Tyr Thr Tyr Phe Ser Glu Pro Val Ser Cys Glu Val Thr Asn Ala
305 310 315 320

Leu Gly Ser Thr Asn Leu Ser Arg Thr Val Asp Val Tyr Phe Gly Pro
325 330 335

Arg Met Thr Thr Glu Pro Gln Ser Leu Leu Val Asp Leu Gly Ser Asp
340 345 350

Ala Ile Phe Ser Cys Ala Trp Thr Gly Asn Pro Ser Leu Thr Ile Val
355 360 365

Trp Met Lys Arg Gly Ser Gly Val Val Leu Ser Asn Glu Lys Thr Leu
370 375 380

Thr Leu Lys Ser Val Arg Gln Glu Asp Ala Gly Lys Tyr Val Cys Arg
385 390 395 400

Ala Val Val Pro Arg Val Gly Ala Gly Glu Arg Glu Val Thr Leu Thr
405 410 415

Val Asn Gly Pro Pro Ile Ile Ser Ser Thr Gln Thr Gln His Ala Leu
420 425 430

His Gly Glu Lys Gly Gln Ile Lys Cys Phe Ile Arg Ser Thr Pro Pro
435 440 445

Pro Asp Arg Ile Ala Trp Ser Trp Lys Glu Asn Val Leu Glu Ser Gly
450 455 460

Thr Ser Gly Arg Tyr Thr Val Glu Thr Ile Ser Thr Glu Glu Gly Val
465 470 475 480

Ile Ser Thr Leu Thr Ile Ser Asn Ile Val Arg Ala Asp Phe Gln Thr
485 490 495

Ile Tyr Asn Cys Thr Ala Trp Asn Ser Phe Gly Ser Asp Thr Glu Ile
500 505 510

Ile Arg Leu Lys Glu Gln Gly Ser Glu Met Lys Ser Gly Ala Gly Leu
515 520 525

Glu Ala Glu Ser Val Pro Met Ala Val Ile Ile Gly Val Ala Val Gly
530 535 540

100-33365-10150

```
<210> 109
<211> 571
<212> PRT
<213> Homo sapiens
```

<400> 109
Met Asn Glu Ala Ile Pro Ser Gly Lys Glu Thr Ser Ile Glu Leu Asp
1 5 10 15
Val His His Pro Pro Thr Val Thr Leu Ser Ile Glu Pro Gln Thr Val

20										25					30						
Gln	Glu	Gly	Glu	Arg	Val	Val	Phe	Thr	Cys	Gln	Ala	Thr	Ala	Asn	Pro						
		35					40					45									
Glu	Ile	Leu	Gly	Tyr	Arg	Trp	Ala	Lys	Gly	Gly	Phe	Leu	Ile	Glu	Asp						
	50					55					60										
Ala	His	Glu	Ser	Arg	Tyr	Glu	Thr	Asn	Val	Asp	Tyr	Ser	Phe	Phe	Thr						
65					70					75					80						
Glu	Pro	Val	Ser	Cys	Glu	Val	His	Asn	Lys	Val	Gly	Ser	Thr	Asn	Val						
				85					90					95							
Ser	Thr	Leu	Val	Asn	Val	His	Phe	Ala	Pro	Arg	Ile	Val	Val	Asp	Pro						
		100						105					110								
Lys	Pro	Thr	Thr	Thr	Asp	Ile	Gly	Ser	Asp	Val	Thr	Leu	Thr	Cys	Val						
	115					120						125									
Trp	Val	Gly	Asn	Pro	Pro	Leu	Thr	Leu	Thr	Trp	Thr	Lys	Lys	Asp	Ser						
130						135					140										
Asn	Met	Gly	Pro	Arg	Pro	Pro	Gly	Ser	Pro	Pro	Glu	Ala	Ala	Leu	Ser						
145					150				155					160							
Ala	Gln	Val	Leu	Ser	Asn	Ser	Asn	Gln	Leu	Leu	Leu	Lys	Ser	Val	Thr						
			165					170						175							
Gln	Ala	Asp	Ala	Gly	Thr	Tyr	Thr	Cys	Arg	Ala	Ile	Val	Pro	Arg	Ile						
		180						185					190								
Gly	Val	Ala	Glu	Arg	Glu	Val	Pro	Leu	Tyr	Val	Asn	Gly	Pro	Pro	Ile						
	195					200					205										
Ile	Ser	Ser	Glu	Ala	Val	Gln	Tyr	Ala	Val	Arg	Gly	Asp	Gly	Gly	Lys						
210					215						220										
Val	Glu	Cys	Phe	Ile	Gly	Ser	Thr	Pro	Pro	Pro	Asp	Arg	Ile	Ala	Trp						
225					230				235						240						
Ala	Trp	Lys	Glu	Asn	Phe	Leu	Glu	Val	Gly	Thr	Leu	Glu	Arg	Tyr	Thr						
			245						250					255							
Val	Glu	Arg	Thr	Asn	Ser	Gly	Ser	Gly	Val	Leu	Ser	Thr	Leu	Thr	Ile						
			260					265					270								
Asn	Asn	Val	Met	Glu	Ala	Asp	Phe	Gln	Thr	His	Tyr	Asn	Cys	Thr	Ala						
	275					280						285									
Trp	Asn	Ser	Phe	Gly	Pro	Gly	Thr	Ala	Ile	Ile	Gln	Leu	Glu	Glu	Arg						
290					295			</													

325 330 335
 Arg Arg Lys Gly Ser Arg Lys Asp Val Thr Leu Arg Lys Leu Asp Ile
 340 345 350
 Lys Val Glu Thr Val Asn Arg Glu Pro Leu Thr Met His Ser Asp Arg
 355 360 365
 Glu Asp Asp Thr Ala Ser Val Ser Thr Ala Thr Arg Val Met Lys Ala
 370 375 380
 Ile Tyr Ser Ser Phe Lys Asp Asp Val Asp Leu Lys Gln Asp Leu Arg
 385 390 395 400
 Cys Asp Thr Ile Asp Thr Arg Glu Glu Tyr Glu Met Lys Asp Pro Thr
 405 410 415
 Asn Gly Tyr Tyr Asn Val Arg Ala His Glu Asp Arg Pro Ser Ser Arg
 420 425 430
 Ala Val Leu Tyr Ala Asp Tyr Arg Ala Pro Gly Pro Ala Arg Phe Asp
 435 440 445
 Gly Arg Pro Ser Ser Arg Leu Ser His Ser Ser Gly Tyr Ala Gln Leu
 450 455 460
 Asn Thr Tyr Ser Arg Gly Pro Ala Ser Asp Tyr Gly Pro Glu Pro Thr
 465 470 475 480
 Pro Pro Gly Pro Ala Ala Pro Ala Gly Thr Asp Thr Thr Ser Gln Leu
 485 490 495
 Ser Tyr Glu Asn Tyr Glu Lys Phe Asn Ser His Pro Phe Pro Gly Ala
 500 505 510
 Ala Gly Tyr Pro Thr Tyr Arg Leu Gly Tyr Pro Gln Ala Pro Pro Ser
 515 520 525
 Gly Leu Glu Arg Thr Pro Tyr Glu Ala Tyr Asp Pro Ile Gly Lys Tyr
 530 535 540
 Ala Thr Ala Thr Arg Phe Ser Tyr Thr Ser Gln His Ser Asp Tyr Gly
 545 550 555 560
 Gln Arg Phe Gln Gln Arg Met Gln Thr His Val
 565 570

<210> 110
 <211> 605
 <212> PRT
 <213> Homo sapiens

<400> 110
 Met Leu Ser Leu Leu Val Trp Ile Leu Thr Leu Ser Asp Thr Phe Ser
 1 5 10 15

Gln Gly Thr Gln Thr Arg Phe Ser Gln Glu Pro Ala Asp Gln Thr Val
 20 25 30
 Val Ala Gly Gln Arg Ala Val Leu Pro Cys Val Leu Leu Asn Tyr Ser
 35 40 45
 Gly Ile Val Gln Trp Thr Lys Asp Gly Leu Ala Leu Gly Met Gly Gln
 50 55 60
 Gly Leu Lys Ala Trp Pro Arg Tyr Arg Val Val Gly Ser Ala Asp Ala
 65 70 75 80
 Gly Gln Tyr Asn Leu Glu Ile Thr Asp Ala Glu Leu Ser Asp Asp Ala
 85 90 95
 Ser Tyr Glu Cys Gln Ala Thr Glu Ala Ala Leu Arg Ser Arg Arg Ala
 100 105 110
 Lys Leu Thr Val Leu Ile Pro Pro Glu Asp Thr Arg Ile Asp Gly Gly
 115 120 125
 Pro Val Ile Leu Leu Gln Ala Gly Thr Pro His Asn Leu Thr Cys Arg
 130 135 140
 Ala Phe Asn Ala Lys Pro Ala Ala Thr Ile Ile Trp Phe Arg Asp Gly
 145 150 155 160
 Thr Gln Gln Glu Gly Ala Val Ala Ser Thr Glu Leu Leu Lys Asp Gly
 165 170 175
 Lys Arg Glu Thr Thr Val Ser Gln Leu Leu Ile Asn Pro Thr Asp Leu
 180 185 190
 Asp Ile Gly Arg Val Phe Thr Cys Arg Ser Met Asn Glu Ala Ile Pro
 195 200 205
 Ser Gly Lys Glu Thr Ser Ile Glu Leu Asp Val His His Pro Pro Thr
 210 215 220
 Val Thr Leu Ser Ile Glu Pro Gln Thr Val Gln Glu Gly Glu Arg Val
 225 230 235 240
 Val Phe Thr Cys Gln Ala Thr Ala Asn Pro Glu Ile Leu Gly Tyr Arg
 245 250 255
 Trp Ala Lys Gly Gly Phe Leu Ile Glu Asp Ala His Glu Ser Arg Tyr
 260 265 270
 Glu Thr Asn Val Asp Tyr Ser Phe Phe Thr Glu Pro Val Ser Cys Glu
 275 280 285
 Val His Asn Lys Val Gly Ser Thr Asn Val Ser Thr Leu Val Asn Val
 290 295 300
 His Phe Ala Pro Arg Ile Val Val Asp Pro Lys Pro Thr Thr Thr Asp
 305 310 315 320

Ile Gly Ser Asp Val Thr Leu Thr Cys Val Trp Val Gly Asn Pro Pro
325 330 335

Leu Thr Leu Thr Trp Thr Lys Lys Asp Ser Asn Met Val Leu Ser Asn
340 345 350

Ser Asn Gln Leu Leu Leu Lys Ser Val Thr Gln Ala Asp Ala Gly Thr
355 360 365

Tyr Thr Cys Arg Ala Ile Val Pro Arg Ile Gly Val Ala Glu Arg Glu
370 375 380

Val Pro Leu Tyr Val Asn Gly Pro Pro Ile Ile Ser Ser Glu Ala Val
385 390 395 400

Gln Tyr Ala Val Arg Gly Asp Gly Gly Lys Val Glu Cys Phe Ile Gly
405 410 415

Ser Thr Pro Pro Pro Asp Arg Ile Ala Trp Ala Trp Lys Glu Asn Phe
420 425 430

Leu Glu Val Gly Thr Leu Glu Arg Tyr Thr Val Glu Arg Thr Asn Ser
435 440 445

Gly Ser Gly Val Leu Ser Thr Leu Thr Ile Asn Asn Val Met Glu Ala
450 455 460

Asp Phe Gln Thr His Tyr Asn Cys Thr Ala Trp Asn Ser Phe Gly Pro
465 470 475 480

Gly Thr Ala Ile Ile Gln Leu Glu Glu Arg Glu Val Leu Pro Val Gly
485 490 495

Ile Ile Ala Gly Ala Thr Ile Gly Ala Ser Ile Leu Leu Ile Phe Phe
500 505 510

Phe Ile Ala Leu Val Phe Phe Leu Tyr Arg Arg Arg Lys Gly Ser Arg
515 520 525

Lys Asp Val Thr Leu Arg Lys Leu Asp Ile Lys Val Glu Thr Val Asn
530 535 540

Arg Glu Pro Leu Thr Met His Ser Asp Arg Glu Asp Asp Thr Ala Ser
545 550 555 560

Val Ser Thr Ala Thr Arg Val Met Lys Ala Ile Tyr Ser Ser Phe Lys
565 570 575

Asp Asp Val Asp Leu Lys Gln Asp Leu Arg Cys Asp Thr Ile Glu Arg
580 585 590

Pro Arg Ile Arg Gly Arg Leu Asn Thr Ser Tyr Ser Asp
595 600 605

<210> 111
<211> 410

<212> PRT

<213> Homo sapiens

<400> 111

Met Val Leu Ser Asn Ser Asn Gln Leu Leu Lys Ser Val Thr Gln
1 5 10 15

Ala Asp Ala Gly Thr Tyr Thr Cys Arg Ala Ile Val Pro Arg Ile Gly
20 25 30

Val Ala Glu Arg Glu Val Pro Leu Tyr Val Asn Gly Pro Pro Ile Ile
35 40 45

Ser Ser Glu Ala Val Gln Tyr Ala Val Arg Gly Asp Gly Gly Lys Val
50 55 60

Glu Cys Phe Ile Gly Ser Thr Pro Pro Pro Asp Arg Ile Ala Trp Ala
65 70 75 80

Trp Lys Glu Asn Phe Leu Glu Val Gly Thr Leu Glu Arg Tyr Thr Val
85 90 95

Glu Arg Thr Asn Ser Gly Ser Gly Val Leu Ser Thr Leu Thr Ile Asn
100 105 110

Asn Val Met Glu Ala Asp Phe Gln Thr His Tyr Asn Cys Thr Ala Trp
115 120 125

Asn Ser Phe Gly Pro Gly Thr Ala Ile Ile Gln Leu Glu Glu Arg Glu
130 135 140

Val Leu Pro Val Gly Ile Ile Ala Gly Ala Thr Ile Gly Ala Ser Ile
145 150 155 160

Leu Leu Ile Phe Phe Phe Ile Ala Leu Val Phe Phe Leu Tyr Arg Arg
165 170 175

Arg Lys Gly Ser Arg Lys Asp Val Thr Leu Arg Lys Leu Asp Ile Lys
180 185 190

Val Glu Thr Val Asn Arg Glu Pro Leu Thr Met His Ser Asp Arg Glu
195 200 205

Asp Asp Thr Ala Ser Val Ser Thr Ala Thr Arg Val Met Lys Ala Ile
210 215 220

Tyr Ser Ser Phe Lys Asp Asp Val Asp Leu Lys Gln Asp Leu Arg Cys
225 230 235 240

Asp Thr Ile Asp Thr Arg Glu Glu Tyr Glu Met Lys Asp Pro Thr Asn
245 250 255

Gly Tyr Tyr Asn Val Arg Ala His Glu Asp Arg Pro Ser Ser Arg Ala
260 265 270

Val Leu Tyr Ala Asp Tyr Arg Ala Pro Gly Pro Ala Arg Phe Asp Gly
275 280 285

Arg Pro Ser Ser Arg Leu Ser His Ser Ser Gly Tyr Ala Gln Leu Asn
 290 295 300

Thr Tyr Ser Arg Gly Pro Ala Ser Asp Tyr Gly Pro Glu Pro Thr Pro
 305 310 315 320

Pro Gly Pro Ala Ala Pro Ala Gly Thr Asp Thr Thr Ser Gln Leu Ser
 325 330 335

Tyr Glu Asn Tyr Glu Lys Phe Asn Ser His Pro Phe Pro Gly Ala Ala
 340 345 350

Gly Tyr Pro Thr Tyr Arg Leu Gly Tyr Pro Gln Ala Pro Pro Ser Gly
 355 360 365

Leu Glu Arg Thr Pro Tyr Glu Ala Tyr Asp Pro Ile Gly Lys Tyr Ala
 370 375 380

Thr Ala Thr Arg Phe Ser Tyr Thr Ser Gln His Ser Asp Tyr Gly Gln
 385 390 395 400

Arg Phe Gln Gln Arg Met Gln Thr His Val
 405 410

<210> 112

<211> 392

<212> PRT

<213> Mus musculus

<400> 112

Met Trp Ala Pro His Leu Val Val Ala Tyr Leu Ile Phe Val Thr Leu
 1 5 10 15

Ala Leu Ala Leu Pro Gly Thr Gln Thr Arg Phe Ser Gln Glu Pro Ala
 20 25 30

Asp Gln Thr Val Val Ala Gly Gln Arg Ala Val Leu Pro Cys Val Leu
 35 40 45

Leu Asn Tyr Ser Gly Ile Val Gln Trp Thr Lys Asp Gly Leu Ala Leu
 50 55 60

Gly Met Gly Gln Gly Leu Lys Ala Trp Pro Arg Tyr Arg Val Val Gly
 65 70 75 80

Ser Ala Asp Ala Gly Gln Tyr Asn Leu Glu Ile Thr Asp Ala Glu Leu
 85 90 95

Ser Asp Asp Ala Ser Tyr Glu Cys Gln Ala Thr Glu Ala Ala Leu Arg
 100 105 110

Ser Arg Arg Ala Lys Leu Thr Val Leu Ile Pro Pro Glu Glu Thr Arg
 115 120 125

Ile Asp Gly Gly Pro Val Ile Leu Leu Gln Ala Gly Thr Pro Tyr Asn

104-10315-102

[illegible]

```
<210> 113
<211> 45
<212> PRT
<213> Homo sapiens
```

<400> 113

Gly Glu Ser Val Thr Leu Thr Cys Ser Val Ser Gly Phe Gly Pro Pro
1 5 10 15

Pro Val Thr Trp Leu Arg Asn Gly Lys Leu Ser Leu Thr Ile Ser Val
20 25 30

Thr Pro Glu Asp Ser Gly Gly Thr Tyr Thr Cys Val Val
35 40 45

<210> 114

<211> 736

<212> PRT

<213> Homo sapiens.

<400> 114

Met Gly Leu Thr Glu Asp Glu Asp Val Arg Ala Met Leu Arg Gly Ser
1 5 10 15

Arg Leu Arg Lys Ile Arg Ser Arg Thr Trp His Lys Glu Arg Leu Tyr
20 25 30

Arg Leu Gln Glu Asp Gly Leu Ser Val Trp Phe Gln Arg Arg Ile Pro
35 40 45

Arg Ala Pro Ser Gln His Ile Phe Phe Val Gln His Ile Glu Ala Val
50 55 60

Arg Glu Gly His Gln Ser Glu Gly Leu Arg Arg Phe Gly Gly Ala Phe
65 70 75 80

Ala Pro Ala Arg Cys Leu Thr Ile Ala Phe Lys Gly Arg Arg Lys Asn
85 90 95

Leu Asp Leu Ala Ala Pro Thr Ala Glu Glu Ala Gln Arg Trp Val Arg
100 105 110

Gly Leu Thr Lys Leu Arg Ala Arg Leu Asp Ala Met Ser Gln Arg Glu
115 120 125

Arg Leu Asp His Trp Ile His Ser Tyr Leu His Arg Ala Asp Ser Asn
130 135 140

Gln Asp Ser Lys Met Ser Phe Lys Glu Ile Lys Ser Leu Leu Arg Met
145 150 155 160

Val Asn Val Asp Met Asn Asp Met Tyr Ala Tyr Leu Leu Phe Lys Glu
165 170 175

Cys Asp His Ser Asn Asn Asp Arg Leu Glu Gly Ala Glu Ile Glu Glu
180 185 190

Phe Leu Arg Arg Leu Leu Lys Arg Pro Glu Leu Glu Glu Ile Phe His
195 200 205

Gln Tyr Ser Gly Glu Asp Arg Val Leu Ser Ala Pro Glu Leu Leu Glu
210 215 220

Phe	Leu	Glu	Asp	Gln	Gly	Glu	Glu	Gly	Ala	Thr	Leu	Ala	Arg	Ala	Gln
225					230					235					240
Gln	Leu	Ile	Gln	Thr	Tyr	Glu	Leu	Asn	Glu	Thr	Ala	Lys	Gln	His	Glu
				245					250					255	
Leu	Met	Thr	Leu	Asp	Gly	Phe	Met	Met	Tyr	Leu	Leu	Ser	Pro	Glu	Gly
			260					265					270		
Ala	Ala	Leu	Asp	Asn	Thr	His	Thr	Cys	Val	Phe	Gln	Asp	Met	Asn	Gln
		275					280					285			
Pro	Leu	Ala	His	Tyr	Phe	Ile	Ser	Ser	Ser	His	Asn	Thr	Tyr	Leu	Thr
	290					295					300				
Asp	Ser	Gln	Ile	Gly	Gly	Pro	Ser	Ser	Thr	Glu	Ala	Tyr	Val	Arg	Ala
305					310					315					320
Phe	Ala	Gln	Gly	Cys	Arg	Cys	Val	Glu	Leu	Asp	Cys	Trp	Glu	Gly	Pro
				325					330					335	
Gly	Gly	Glu	Pro	Val	Ile	Tyr	His	Gly	His	Thr	Leu	Thr	Ser	Lys	Ile
			340					345					350		
Leu	Phe	Arg	Asp	Val	Val	Gln	Ala	Val	Arg	Asp	His	Ala	Phe	Thr	Leu
		355					360					365			
Ser	Pro	Tyr	Pro	Val	Ile	Leu	Ser	Leu	Glu	Asn	His	Cys	Gly	Leu	Glu
	370					375					380				
Gln	Gln	Ala	Ala	Met	Ala	Arg	His	Leu	Cys	Thr	Ile	Leu	Gly	Asp	Met
385					390					395					400
Leu	Val	Thr	Gln	Ala	Leu	Asp	Ser	Pro	Asn	Pro	Glu	Glu	Leu	Pro	Ser
				405					410					415	
Pro	Glu	Gln	Leu	Lys	Gly	Arg	Val	Leu	Val	Lys	Gly	Lys	Lys	Leu	Pro
			420					425					430		
Ala	Ala	Arg	Ser	Glu	Asp	Gly	Arg	Ala	Leu	Ser	Asp	Arg	Glu	Glu	Glu
		435					440					445			
Glu	Glu	Asp	Asp	Glu	Glu	Glu	Glu	Glu	Glu	Val	Glu	Ala	Ala	Ala	Gln
		450				455					460				
Arg	Arg	Leu	Ala	Lys	Gln	Ile	Ser	Pro	Glu	Leu	Ser	Ala	Leu	Ala	Val
465					470					475					480
Tyr	Cys	His	Ala	Thr	Arg	Leu	Arg	Thr	Leu	His	Pro	Ala	Pro	Asn	Ala
				485					490					495	
Pro	Gln	Pro	Cys	Gln	Val	Ser	Ser	Leu	Ser	Glu	Arg	Lys	Ala	Lys	Lys
			500					505					510		
Leu	Ile	Arg	Glu	Ala	Gly	Asn	Ser	Phe	Val	Arg	His	Asn	Ala	Arg	Gln
		515					520					525			

Leu Thr Arg Val Tyr Pro Leu Gly Leu Arg Met Asn Ser Ala Asn Tyr
530 535 540

Ser Pro Gln Glu Met Trp Asn Ser Gly Cys Gln Leu Val Ala Leu Asn
545 550 555 560

Phe Gln Thr Pro Gly Tyr Glu Met Asp Leu Asn Ala Gly Arg Phe Leu
565 570 575

Val Asn Gly Gln Cys Gly Tyr Val Leu Lys Pro Ala Cys Leu Arg Gln
580 585 590

Pro Asp Ser Thr Phe Asp Pro Glu Tyr Pro Gly Pro Pro Arg Thr Thr
595 600 605

Leu Ser Ile Gln Val Leu Thr Ala Gln Gln Leu Pro Lys Leu Asn Ala
610 615 620

Glu Lys Pro His Ser Ile Val Asp Pro Leu Val Arg Ile Glu Ile His
625 630 635 640

Gly Val Pro Ala Asp Cys Ala Arg Gln Glu Thr Asp Tyr Val Leu Asn
645 650 655

Asn Gly Phe Asn Pro Arg Trp Gly Gln Thr Leu Gln Phe Gln Leu Arg
660 665 670

Ala Pro Glu Leu Ala Leu Val Arg Phe Val Val Glu Asp Tyr Asp Ala
675 680 685

Thr Ser Pro Asn Asp Phe Val Gly Gln Phe Thr Leu Pro Leu Ser Ser
690 695 700

Leu Lys Gln Gly Tyr Arg His Ile His Leu Leu Ser Lys Asp Gly Ala
705 710 715 720

Ser Leu Ser Pro Ala Thr Leu Phe Ile Gln Ile Arg Ile Gln Arg Ser
725 730 735

<210> 115

<211> 613

<212> PRT

<213> Homo sapiens

<400> 115

Met Ser Gln Arg Glu Arg Leu Asp His Trp Ile His Ser Tyr Leu His
1 5 10 15

Arg Ala Asp Ser Asn Gln Asp Ser Lys Met Ser Phe Lys Glu Ile Lys
20 25 30

Ser Leu Leu Arg Met Val Asn Val Asp Met Asn Asp Met Tyr Ala Tyr

35	40	45
Leu Leu Phe Lys Glu Cys Asp His Ser Asn Asn Asp Arg Leu Glu Gly		
50	55	60
Ala Glu Ile Glu Glu Phe Leu Arg Arg Leu Leu Lys Arg Pro Glu Leu		
65	70	75
Glu Glu Ile Phe His Gln Tyr Ser Gly Glu Asp Arg Val Leu Ser Ala		
	85	90
Pro Glu Leu Leu Glu Phe Leu Glu Asp Gln Gly Glu Glu Gly Ala Thr		
	100	105
Leu Ala Arg Ala Gln Gln Leu Ile Gln Thr Tyr Glu Leu Asn Glu Thr		
	115	120
Ala Lys Gln His Glu Leu Met Thr Leu Asp Gly Phe Met Met Tyr Leu		
	130	135
Leu Ser Pro Glu Gly Ala Ala Leu Asp Asn Thr His Thr Cys Val Phe		
145	150	155
Gln Asp Met Asn Gln Pro Leu Ala His Tyr Phe Ile Ser Ser Ser His		
	165	170
Asn Thr Tyr Leu Thr Asp Ser Gln Ile Gly Gly Pro Ser Ser Thr Glu		
	180	185
Ala Tyr Val Arg Ala Phe Ala Gln Gly Cys Arg Cys Val Glu Leu Asp		
	195	200
Cys Trp Glu Gly Pro Gly Gly Glu Pro Val Ile Tyr His Gly His Thr		
210	215	220
Leu Thr Ser Lys Ile Leu Phe Arg Asp Val Val Gln Ala Val Arg Asp		
225	230	235
His Ala Phe Thr Leu Ser Pro Tyr Pro Val Ile Leu Ser Leu Glu Asn		
	245	250
His Cys Gly Leu Glu Gln Gln Ala Ala Met Ala Arg His Leu Cys Thr		
	260	265
Ile Leu Gly Asp Met Leu Val Thr Gln Ala Leu Asp Ser Pro Asn Pro		
	275	280
Glu Glu Leu Pro Ser Pro Glu Gln Leu Lys Gly Arg Val Leu Val Lys		
	290	295
Gly Lys Lys Leu Pro Ala Ala Arg Ser Glu Asp Gly Arg Ala Leu Ser		
305	310	315
Asp Arg Glu Glu Glu Glu Glu Asp Asp Glu Glu Glu Glu Glu Val		
	325	330
Glu Ala Ala Ala Gln Arg Arg Leu Ala Lys Gln Ile Ser Pro Glu Leu		

2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045 2046 2047 2048 2049 2050 2051 2052 2053 2054 2055 2056 2057 2058 2059 2060 2061 2062 2063 2064 2065 2066 2067 2068 2069 2070 2071 2072 2073 2074 2075 2076 2077 2078 2079 2080 2081 2082 2083 2084 2085 2086 2087 2088 2089 2090 2091 2092 2093 2094 2095 2096 2097 2098 2099 2100 2101 2102 2103 2104 2105 2106 2107 2108 2109 2110 2111 2112 2113 2114 2115 2116 2117 2118 2119 2120 2121 2122 2123 2124 2125 2126 2127 2128 2129 2130 2131 2132 2133 2134 2135 2136 2137 2138 2139 2140 2141 2142 2143 2144 2145 2146 2147 2148 2149 2150 2151 2152 2153 2154 2155 2156 2157 2158 2159 2160 2161 2162 2163 2164 2165 2166 2167 2168 2169 2170 2171 2172 2173 2174 2175 2176 2177 2178 2179 2180 2181 2182 2183 2184 2185 2186 2187 2188 2189 2190 2191 2192 2193 2194 2195 2196 2197 2198 2199 2200 2201 2202 2203 2204 2205 2206 2207 2208 2209 2210 2211 2212 2213 2214 2215 2216 2217 2218 2219 2220 2221 2222 2223 2224 2225 2226 2227 2228 2229 2230 2231 2232 2233 2234 2235 2236 2237 2238 2239 2240 2241 2242 2243 2244 2245 2246 2247 2248 2249 2250 2251 2252 2253 2254 2255 2256 2257 2258 2259 2260 2261 2262 2263 2264 2265 2266 2267 2268 2269 2270 2271 2272 2273 2274 2275 2276 2277 2278 2279 2280 2281 2282 2283 2284 2285 2286 2287 2288 2289 2290 2291 2292 2293 2294 2295 2296 2297 2298 2299 2300 2301 2302 2303 2304 2305 2306 2307 2308 2309 2310 2311 2312 2313 2314 2315 2316 2317 2318 2319 2320 2321 2322 2323 2324 2325 2326 2327 2328 2329 2330 2331 2332 2333 2334 2335 2336 2337 2338 2339 2340 2341 2342 2343 2344 2345 2346 2347 2348 2349 2350 2351 2352 2353 2354 2355 2356 2357 2358 2359 2360 2361 2362 2363 2364 2365 2366 2367 2368 2369 2370 2371 2372 2373 2374 2375 2376 2377 2378 2379 2380 2381 2382 2383 2384 2385 2386 2387 2388 2389 2390 2391 2392 2393 2394 2395 2396 2397 2398 2399 2400 2401 2402 2403 2404 2405 2406 2407 2408 2409 2410 2411 2412 2413 2414 2415 2416 2417 2418 2419 2420 2421 2422 2423 2424 2425 2426 2427 2428 2429 2430 2431 2432 2433 2434 2435 2436 2437 2438 2439 2440 2441 2442 2443 2444 2445 2446 2447 2448 2449 2450 2451 2452 2453 2454 2455 2456 2457 2458 2459 2460 2461 2462 2463 2464 2465 2466 2467 2468 2469 2470 2471 2472 2473 2474 2475 2476 2477 2478 2479 2480 2481 2482 2483 2484 2485 2486 2487 2488 2489 2490 2491 2492 2493 2494 2495 2496 2497 2498 2499 2500 2501 2502 2503 2504 2505 2506 2507 2508 2509 2510 2511 2512 2513 2514 2515 2516 2517 2518 2519 2520 2521 2522 2523 2524 2525 2526 2527 2528 2529 2530 2531 2532 2533 2534 2535 2536 2537 2538 2539 2540 2541 2542 2543 2544 2545 2546 2547 2548 2549 2550 2551 2552 2553 2554 2555 2556 2557 2558 2559 2560 2561 2562 2563 2564 2565 2566 2567 2568 2569 2570 2571 2572 2573 2574 2575 2576 2577 2578 2579 2580 2581 2582 2583 2584 2585 2586 2587 2588 2589 2590 2591 2592 2593 2594 2595 2596 2597 2598 2599 2600 2601 2602 2603 2604 2605 2606 2607 2608 2609 2610 2611 2612 2613 2614 2615 2616 2617 2618 2619 2620 2621 2622 2623 2624 2625 2626 2627 2628 2629 2630 2631 2632 2633 2634 2635 2636 2637 2638 2639 2640 2641 2642 2643 2644 2645 2646 2647 2648 2649 2650 2651 2652 2653 2654 2655 2656 2657 2658 2659 2660 2661 2662 2663 2664 2665 2666 2667 2668 2669 2670 2671 2672 2673 2674 2675 2676 2677 2678 2679 2680 2681 2682 2683 2684 2685 2686 2687 2688 2689 2690 2691 2692 2693 2694 2695 2696 2697 2698 2699 2700 2701 2702 2703 2704 2705 2706 2707 2708 2709 2710 2711 2712 2713 2714 2715 2716 2717 2718 2719 2720 2721 2722 2723 2724 2725 2726 2727 2728 2729 2730 2731 2732 2733 2734 2735 2736 2737 2738 2739 2740 2741 2742 2743 2744 2745 2746 2747 2748 2749 2750 2751 2752 2753 2754 2755 2756 2757 2758 2759 2760 2761 2762 2763 2764 2765 2766 2767 2768 2769 2770 2771 2772 2773 2774 2775 2776 2777 2778 2779 2780 2781 2782 2783 2784 2785 2786 2787 2788 2789 2790 2791 2792 2793 2794 2795 2796 2797 2798 2799 2800 2801 2802 2803 2804 2805 2806 2807 2808 2809 2810 2811 2812 2813 2814 2815 2816 2817 2818

[illegible]

```
<210> 116
<211> 745
<212> PRT
```


Gln Pro Leu Ser His Tyr Leu Val Ser Ser Ser His Asn Thr Tyr Leu
 290 295 300
 Leu Glu Asp Gln Leu Thr Gly Pro Ser Ser Thr Glu Ala Tyr Ile Arg
 305 310 315 320
 Ala Leu Cys Lys Gly Cys Arg Cys Leu Glu Leu Asp Cys Trp Asp Gly
 325 330 335
 Pro Asn Gln Glu Pro Ile Ile Tyr His Glv Tvr Thr Phe Thr Ser Lvs
 340 345 350
 Ile Leu Phe Tyr Asp Val Leu Arg Ala Ile Arg Asp Tyr Ala Phe Lys
 355 360 365
 Ala Ser Pro Tyr Pro Val Ile Leu Ser Leu Glu Asn His Cys Ser Leu
 370 375 380
 Glu Gln Gln Gln Val Met Ala Arg His Leu Lys Ala Ile Leu Gly Pro
 385 390 395 400
 Met Leu Leu Asp Gln Pro Leu Asp Gly Val Thr Met Ser Leu Pro Ser
 405 410 415
 Pro Glu Gln Leu Lys Gly Lys Ile Leu Leu Lys Gly Lys Lys Phe Gly
 420 425 430
 Gly Leu Leu Pro Ala Gly Gly Glu Asn Gly Pro Glu Thr Thr Asp Val
 435 440 445
 Ser Asp Glu Asp Glu Ala Ala Glu Met Glu Asp Glu Ala Val Arg Ser
 450 455 460
 Gln Val Gln Gln Lys Ser Lys Glu Asp Lys Leu Asn Val Ala Pro Glu
 465 470 475 480
 Leu Ser Asp Met Val Ile Tyr Cys Lys Ser Val His Phe Gly Gly Phe
 485 490 495
 Ser Asn Pro Ser Thr Ser Gly Gln Ala Phe Tyr Glu Met Ala Ser Phe
 500 505 510
 Ser Glu Asn Arg Ala Leu Arg Leu Leu Gln Glu Ser Gly Asn Asn Phe
 515 520 525
 Val Arg His Asn Val Ser His Leu Ser Arg Ile Tyr Pro Ala Gly Arg
 530 535 540
 Arg Thr Asp Ser Ser Asn Tyr Ser Pro Val Glu Met Trp Asn Gly Gly
 545 550 555 560
 Cys Gln Ile Val Ala Leu Asn Phe Gln Thr Pro Gly Pro Glu Met Asp
 565 570 575
 Val Tyr Leu Gly Arg Phe Gln Asp Asn Gly Ala Cys Gly Tyr Val Leu
 580 585 590

Lys Pro Ala Phe Leu Arg Asp Pro Asp Thr Ala Phe Asn Pro Arg Ala
 595 600 605
 Leu Thr Gln Gly Pro Trp Trp Ala Gln Lys Arg Leu Arg Val Arg Val
 610 615 620
 Ile Ser Gly Gln Gln Leu Pro Lys Val Asn Lys Ser Lys Asn Ser Ile
 625 630 635 640
 Val Asp Pro Lys Val Ile Val Glu Val His Gly Val Gly Gln Asp Val
 645 650 655
 Ala Ser Arg Gln Thr Ala Val Ile Thr Asn Asn Gly Phe Asn Pro Trp
 660 665 670
 Trp Asp Thr Glu Phe Glu Phe Glu Val Ala Val Pro Asp Leu Ala Leu
 675 680 685
 Val Arg Phe Val Val Glu Asp Tyr Asp Ala Ser Ser Lys Asn Asp Phe
 690 695 700
 Ile Gly Gln Ser Thr Ile Pro Trp Asn Ser Leu Lys Gln Gly Tyr Arg
 705 710 715 720
 His Val His Leu Leu Ser Lys Asn Gly Asp Gln His Pro Ser Ala Thr
 725 730 735
 Leu Phe Val Lys Ile Ser Leu Gln Asp
 740 745

<210> 117
 <211> 756
 <212> PRT
 <213> Mus musculus

<400> 117
 Met Asp Ser Gly Arg Asp Phe Leu Thr Leu His Gly Leu Gln Asp Asp
 1 5 10 15
 Pro Asp Leu Gln Ala Leu Leu Lys Gly Ser Gln Leu Leu Lys Val Lys
 20 25 30
 Ser Ser Ser Trp Arg Arg Glu Arg Phe Tyr Lys Leu Gln Glu Asp Cys
 35 40 45
 Lys Thr Ile Trp Gln Glu Ser Arg Lys Val Met Arg Ser Pro Glu Ser
 50 55 60
 Gln Leu Phe Ser Ile Glu Asp Ile Gln Glu Val Arg Met Gly His Arg
 65 70 75 80
 Thr Glu Gly Leu Glu Lys Phe Ala Arg Asp Ile Pro Glu Asp Arg Cys
 85 90 95
 Phe Ser Ile Val Phe Lys Asp Gln Arg Asn Thr Leu Asp Leu Ile Ala
 100 105 110

ALICE B. BROWN

SECRET

Ile Pro Trp Asn Ser Leu Lys Gln Gly Tyr Arg His Val His Leu Leu
725 730 735

Ser Lys Asn Gly Asp Leu His Pro Ser Ala Thr Leu Phe Val Lys Ile
740 745 750

Ser Ile Gln Asp
755

<210> 118
<211> 756
<212> PRT
<213> Homo sapiens

<400> 118
Met Asp Ser Gly Arg Asp Phe Leu Thr Leu His Gly Leu Gln Asp Asp
1 5 10 15

Glu Asp Leu Gln Ala Leu Leu Lys Gly Ser Gln Leu Leu Lys Val Lys
20 25 30

Ser Ser Ser Trp Arg Arg Glu Arg Phe Tyr Lys Leu Gln Glu Asp Cys
35 40 45

Lys Thr Ile Trp Gln Glu Ser Arg Lys Val Met Arg Thr Pro Glu Ser
50 55 60

Gln Leu Phe Ser Ile Glu Asp Ile Gln Glu Val Arg Met Gly His Arg
65 70 75 80

Thr Glu Gly Leu Glu Lys Phe Ala Arg Asp Val Pro Glu Asp Arg Cys
85 90 95

Phe Ser Ile Val Phe Lys Asp Gln Arg Asn Thr Leu Asp Leu Ile Ala
100 105 110

Pro Ser Pro Ala Asp Ala Gln His Trp Val Leu Gly Leu His Lys Ile
115 120 125

Ile His His Ser Gly Ser Met Asp Gln Arg Gln Lys Leu Gln His Trp
130 135 140

Ile His Ser Cys Leu Arg Lys Ala Asp Lys Asn Lys Asp Asn Lys Met
145 150 155 160

Ser Phe Lys Glu Leu Gln Asn Phe Leu Lys Glu Leu Asn Ile Gln Val
165 170 175

Asp Asp Ser Tyr Ala Arg Lys Ile Phe Arg Glu Cys Asp His Ser Gln
180 185 190

Thr Asp Ser Leu Glu Asp Glu Glu Ile Glu Ala Phe Tyr Lys Met Leu
195 200 205

Thr Gln Arg Val Glu Ile Asp Arg Thr Phe Ala Glu Ala Ala Gly Pro

100-368541-100-368541

Thr Tyr Leu Thr Gly Lys Gln Leu Trp Gly Lys Ser Ser Val Glu Ser
 20 25 30

Tyr Arg Gln Gln Leu Asp Ala Gly Cys Arg Cys Val Glu Leu Asp Cys
 35 40 45

Trp Asp Gly Lys Pro Asp Asp Glu Pro Ile Ile Tyr His Gly His Thr
 50 55 60

Leu Thr Leu Glu Ile Lys Leu Lys Asp Val Leu Glu Ala Ile Lys Asp
 65 70 75 80

Phe Ala Phe Lys Pro Thr Ser Pro Tyr Pro Val Ile Leu Ser Leu Glu
 85 90 95

Asn His Cys Asn Ser Asp Asp Gln Gln Arg Lys Met Ala Lys Tyr Phe
 100 105 110

Lys Glu Ile Phe Gly Asp Met Leu Leu Thr Lys Pro Thr Leu Asp Ser
 115 120 125

Leu Thr Thr Glu Pro Gly Leu Pro Leu Pro Ser Leu Lys Asp Leu Arg
 130 135 140

Gly Lys Ile Leu Leu Lys Asn Lys Lys
 145 150

<210> 120

<211> 87

<212> PRT

<213> Homo sapiens

<400> 120

Lys Leu Leu Lys Glu Ser Pro Val Glu Phe Val Lys Tyr Asn Lys Arg
 1 5 10 15

Gln Leu Ser Arg Val Tyr Pro Lys Gly Thr Arg Val Asp Ser Ser Asn
 20 25 30

Phe Met Pro Gln Val Phe Trp Asn Ala Gly Cys Gln Met Val Ala Leu
 35 40 45

Asn Phe Gln Thr Ser Asp Leu Pro Met Gln Ile Asn Asp Gly Met Phe
 50 55 60

Glu Tyr Asn Gly Gly Gln Pro Asp Gly Ser Phe Lys Ser Gly Tyr Leu
 65 70 75 80

Leu Lys Pro Glu Phe Leu Arg
 85

<210> 121

<211> 95

<212> PRT

<213> Homo sapiens

<400> 121

Leu Thr Val Thr Val Ile Glu Ala Arg Asn Leu Pro Lys Met Asp Lys
 1 5 10 15
 Val Asn Gly Arg Leu Ser Asp Pro Tyr Val Lys Val Ser Leu Leu Gly
 20 25 30
 Asp Lys Lys Asp Leu Lys Lys Phe Lys Thr Lys Val Val Lys Lys Thr
 35 40 45
 Asn Gly Leu Asn Pro Val Trp Asn Glu Glu Thr Phe Val Phe Glu Lys
 50 55 60
 Val Pro Leu Pro Glu Leu Ala Ser Lys Thr Leu Arg Phe Ala Val Tyr
 65 70 75 80
 Asp Glu Asp Arg Phe Ser Arg Asp Asp Phe Ile Gly Gln Val Thr
 85 90 95

<210> 122

<211> 323

<212> PRT

<213> Homo sapiens

<400> 122

Met Asp Ser Lys Tyr Gln Cys Val Lys Leu Asn Asp Gly His Phe Met
 1 5 10 15
 Pro Val Leu Gly Phe Gly Thr Tyr Ala Pro Ala Glu Val Pro Lys Ser
 20 25 30
 Lys Ala Leu Glu Ala Val Lys Leu Ala Ile Glu Ala Gly Phe His His
 35 40 45
 Ile Asp Ser Ala His Val Tyr Asn Asn Glu Glu Gln Val Gly Leu Ala
 50 55 60
 Ile Arg Ser Lys Ile Ala Asp Gly Ser Val Lys Arg Glu Asp Ile Phe
 65 70 75 80
 Tyr Thr Ser Lys Leu Trp Ser Asn Ser His Arg Pro Glu Leu Val Arg
 85 90 95
 Pro Ala Leu Glu Arg Ser Leu Lys Asn Leu Gln Leu Asp Tyr Val Asp
 100 105 110
 Leu Tyr Leu Ile His Phe Pro Val Ser Val Lys Pro Gly Glu Glu Val
 115 120 125
 Ile Pro Lys Asp Glu Asn Gly Lys Ile Leu Phe Asp Thr Val Asp Leu
 130 135 140
 Cys Ala Thr Trp Glu Ala Met Glu Lys Cys Lys Asp Ala Gly Leu Ala
 145 150 155 160

Lys Ser Ile Gly Val Ser Asn Phe Asn His Arg Leu Leu Glu Met Ile
 165 170 175
 Leu Asn Lys Pro Gly Leu Lys Tyr Lys Pro Val Cys Asn Gln Val Glu
 180 185 190
 Cys His Pro Tyr Phe Asn Gln Arg Lys Leu Leu Asp Phe Cys Lys Ser
 195 200 205
 Lys Asp Ile Val Leu Val Ala Tyr Ser Ala Leu Gly Ser His Arg Glu
 210 215 220
 Glu Pro Trp Val Asp Pro Asn Ser Pro Val Leu Leu Glu Asp Pro Val
 225 230 235 240
 Leu Cys Ala Leu Ala Lys Lys His Lys Arg Thr Pro Ala Leu Ile Ala
 245 250 255
 Leu Arg Tyr Gln Leu Gln Arg Gly Val Val Val Leu Ala Lys Ser Tyr
 260 265 270
 Asn Glu Gln Arg Ile Arg Gln Asn Val Gln Val Phe Glu Phe Gln Leu
 275 280 285
 Thr Ser Glu Glu Met Lys Ala Ile Asp Gly Leu Asn Arg Asn Val Arg
 290 295 300
 Tyr Leu Thr Leu Asp Ile Phe Ala Gly Pro Pro Asn Tyr Pro Phe Ser
 305 310 315 320
 Asp Glu Tyr

<210> 123
 <211> 323
 <212> PRT
 <213> Homo sapiens

<400> 123
 Met Asp Ser Lys Tyr Gln Cys Val Lys Leu Asn Asp Gly His Phe Met
 1 5 10 15
 Pro Val Leu Gly Phe Gly Thr Tyr Ala Pro Ala Glu Val Pro Lys Ser
 20 25 30
 Lys Ala Leu Glu Ala Val Lys Leu Ala Ile Glu Ala Gly Phe His His
 35 40 45
 Ile Asp Ser Ala His Val Tyr Asn Asn Glu Glu Gln Val Gly Leu Ala
 50 55 60
 Ile Arg Ser Lys Ile Ala Asp Gly Ser Val Lys Arg Glu Asp Ile Phe
 65 70 75 80
 Tyr Thr Ser Lys Leu Trp Ser Asn Ser His Arg Pro Glu Leu Val Arg
 85 90 95

[illegible][illegible]

SECRET

```
<210> 125
<211> 329
<212> PRT
<213> Homo sapiens
```

<400> 125

Met 1	Asp	Ser	Lys	Tyr	Gln	Cys	Val	Lvs	Leu	Asn	Asp	Gly	His	Phe	Met
5									10					15	
Pro	Val	Leu	Gly	Phe	Gly	Thr	Tyr	Ala	Pro	Ala	Glu	Val	Pro	Lys	Ser
		20						25					30		
Lys	Ala	Leu	Glu	Ala	Val	Lys	Leu	Ala	Ile	Glu	Ala	Gly	Tyr	His	His
		35					40					45			
Ile	Asp	Ser	Ala	His	Val	Tyr	Asn	Asn	Glu	Glu	Gln	Val	Gly	Leu	Ala
	50					55					60				
Ile	Arg	Ser	Lys	Ile	Ala	Asp	Gly	Ser	Val	Lys	Arg	Glu	Asp	Ile	Phe
	65				70					75					80
Tyr	Thr	Ser	Lys	Leu	Trp	Ser	Asn	Ser	His	Arg	Pro	Glu	Leu	Val	Arg
				85					90					95	
Pro	Ala	Leu	Glu	Arg	Ser	Leu	Lys	Asn	Leu	Gln	Leu	Asp	Tyr	Ala	Asp
			100					105					110		
Leu	Tyr	Leu	Ile	His	Phe	Pro	Val	Ser	Val	Lys	Pro	Gly	Glu	Glu	Val
		115					120					125			
Ile	Pro	Lys	Asp	Glu	Asn	Gly	Lys	Ile	Leu	Phe	Asp	Thr	Val	Asp	Leu
	130					135					140				
Cys	Ala	Thr	Trp	Glu	Ala	Met	Glu	Lys	Cys	Lys	Asp	Ala	Gly	Leu	Ala
145					150					155					160
Lys	Ser	Ile	Gly	Val	Ser	Asn	Phe	Asn	His	Arg	Leu	Leu	Glu	Met	Ile
				165					170					175	
Leu	Asn	Glu	Pro	Gly	Leu	Lys	Tyr	Glu	Pro	Val	Cys	Asn	Gln	Val	Glu
			180					185					190		
Cys	His	Pro	Tyr	Phe	Asn	Gln	Arg	Lys	Leu	Leu	Asp	Phe	Cys	Lys	Ser
		195					200					205			
Lys	Asp	Ile	Val	Leu	Val	Ala	Tyr	Ser	Ala	Leu	Gly	Ser	His	Arg	Glu
	210					215					220				
Glu	Pro	Trp	Val	Asp	Pro	Asn	Ser	Pro	Val	Leu	Leu	Glu	Asp	Pro	Val
225					230					235					240
Leu	Cys	Ala	Leu	Ala	Lys	Lys	His	Lys	Arg	Thr	Pro	Ala	Leu	Ile	Ala
				245					250					255	

Leu Arg Tyr Gln Leu Gln Arg Gly Val Val Val Leu Ala Lys Ser Tyr
 260 265 270
 Asn Glu Gln Arg Ile Arg Gln Asn Val Gln Val Phe Glu Phe Gln Leu
 275 280 285
 Thr Ser Glu Glu Met Lys Ala Ile Asp Gly Leu Asn Arg Asn Val Arg
 290 295 300
 Tyr Leu Thr Leu Asp Ile Leu Leu Ala Pro Leu Ile Ile Arg Phe Leu
 305 310 315 320
 Met Asn Ile Asn Met Glu Gly Ile Ala
 325

<210> 126
 <211> 323
 <212> PRT
 <213> Macaca fuscata

<400> 126
 Met Asp Ser Lys His Gln Cys Val Lys Leu Asn Asp Gly His Phe Met
 1 5 10 15
 Pro Val Leu Gly Phe Gly Thr Tyr Ala Pro Ala Glu Val Pro Lys Asn
 20 25 30
 Lys Ala Ile Glu Ala Thr Lys Leu Ala Ile Glu Ala Gly Phe Arg His
 35 40 45
 Ile Asp Ser Ala His Leu Tyr Asn Asn Glu Glu Tyr Val Gly Leu Ala
 50 55 60
 Ile Arg Ser Lys Ile Ala Asp Gly Thr Val Lys Arg Glu Asp Ile Phe
 65 70 75 80
 Tyr Thr Ser Lys Leu Trp Cys Asn Ser His Arg Pro Glu Phe Val Arg
 85 90 95
 Pro Ala Leu Glu Arg Ser Leu Lys Asn Leu Gln Leu Asp Tyr Val Asp
 100 105 110
 Leu Tyr Leu Ile His Phe Pro Val Ser Leu Lys Pro Gly Glu Glu Leu
 115 120 125
 Ile Pro Lys Asp Glu Asn Gly Lys Leu Leu Phe Asp Thr Val Asp Leu
 130 135 140
 Cys Ala Thr Trp Glu Ala Met Glu Lys Cys Lys Asp Ala Gly Leu Ala
 145 150 155 160
 Lys Ser Ile Gly Val Ser Asn Phe Asn Arg Arg Gln Leu Glu Met Ile
 165 170 175
 Leu Asn Lys Pro Gly Leu Lys Tyr Lys Pro Val Cys Asn Gln Val Glu
 180 185 190

Cys His Pro Tyr Leu Asn Gln Arg Lys Leu Leu Asp Phe Cys Lys Ser
 195 200 205

Lys Asp Ile Val Leu Val Ala Tyr Ser Ala Leu Gly Ser His Arg Glu
 210 215 220

Lys Pro Trp Val Asp Gln Asn Ser Pro Val Leu Leu Glu Asp Pro Val
 225 230 235 240

Leu Cys Ala Leu Ala Lys Lys His Lys Arg Thr Pro Ala Leu Ile Ala
 245 250 255

Leu Arg Tyr Gln Leu Gln Arg Gly Val Val Val Leu Ala Lys Ser Tyr
 260 265 270

Asn Glu Gln Arg Ile Arg Glu Asn Met Lys Val Phe Glu Phe Gln Leu
 275 280 285

Thr Ser Glu Asp Met Lys Ala Ile Asp Gly Leu Asp Arg Asn Ile Arg
 290 295 300

Tyr Leu Thr Leu Asp Ile Phe Ala Gly Pro Pro Asn Tyr Pro Phe Ser
 305 310 315 320

Asp Glu Tyr

<210> 127
 <211> 368
 <212> PRT
 <213> Homo sapiens

<400> 127
 Leu Asn Asn Gly Leu Lys Leu Lys Met Pro Leu Leu Gly Leu Gly Thr
 1 5 10 15

Trp Gln Thr Pro Gly Glu Glu Asp Tyr Leu Trp Gly Arg Val Asp Lys
 20 25 30

Glu Glu Ala Lys Glu Ala Val Lys Ala Ala Leu Asp Ala Gly Tyr Arg
 35 40 45

His Ile Asp Thr Ala Ala Ile Tyr Gly Asn Gly Gln Lys Pro Gly Gln
 50 55 60

Ser Glu Glu Glu Val Gly Glu Ala Ile Lys Glu Ala Leu Glu Glu Gly
 65 70 75 80

Ser Val Val Val Ile Thr Lys Tyr Lys Arg Glu Asp Ile Phe Ile Thr
 85 90 95

Ser Asp Lys Leu Trp Asn Thr Phe Gly Pro Asp Leu Ser Glu Tyr Gly
 100 105 110

His Ser Pro Lys His Val Arg Glu Ala Leu Glu Lys Ser Leu Lys Arg

115	120	125
Leu Gly Leu Asp Tyr Val Asp	Leu Tyr Leu Ile His Trp Pro Asp Pro	
130	135	140
Phe Lys Pro Gly Ile Glu Asp Lys Tyr Pro Leu Gly Phe Pro Thr Asp		
145	150	155
Asp Asp Gly Lys Leu Ile Tyr Glu Asp Val Pro Ile Glu Glu Thr Trp		
	165	170
Lys Ala Leu Glu Lys Leu Val Asp Glu Gly Lys Val Arg Ser Ile Gly		
	180	185
Val Ser Asn Phe Ser Ala Glu Gln Leu Glu Glu Leu Leu Ser Tyr Ala		
	195	200
Gly Lys Leu Lys Leu Ile Pro Pro Val Val Asn Gln Val Glu Leu His		
	210	215
Pro Tyr Leu Arg Gln Asp Glu Leu Arg Lys Val Pro Leu Leu Pro Phe		
	225	230
Cys Lys Ser His Gly Ile Ala Val Thr Ala Tyr Ser Pro Leu Gly Ser		
	245	250
Gly Leu Leu Thr Gly Lys Tyr Lys Thr Glu Glu Asp Ile Pro Gly Asp		
	260	265
Arg Arg Ser Leu Leu Gly Ala Asp Lys Gly Trp Ser Glu Leu Gly Ser		
	275	280
Pro Glu Leu Leu Glu Asp Pro Val Leu Lys Ala Ile Ala Glu Lys Tyr		
	290	295
Gly Tyr Lys Asp Lys Thr Pro Ala Gln Val Ala Leu Arg Trp Ala Leu		
	305	310
Gln Arg Gly Gly Gly Ala Gly Val Val Val Val Ile Pro Lys Ser Ser		
	325	330
Asn Pro Glu Arg Ile Lys Glu Asn Leu Lys Ala Phe Asp Asp Phe Glu		
	340	345
Leu Thr Glu Glu Asp Met Lys Ala Ile Asp Glu Leu Asp Arg Gly Lys		
	355	360

<210> 128
 <211> 255
 <212> PRT
 <213> Staphylococcus aureus

<400> 128

Met Thr Met Met Asp Met Asn Phe Lys Tyr Cys His Lys Ile Met Lys
 1 5 10 15
 Lys His Ser Lys Ser Phe Ser Tyr Ala Phe Asp Leu Leu Pro Glu Asp
 20 25 30
 Gln Arg Lys Ala Val Trp Ala Ile Tyr Ala Val Cys Arg Lys Ile Asp
 35 40 45
 Asp Ser Ile Asp Val Trp Gly Asp Ile Gln Phe Leu Ile Gln Ile Lys
 50 55 60
 Glu Asp Ile Gln Ser Ile Glu Lys Tyr Pro Tyr Glu His His His Phe
 65 70 75 80
 Gln Ser Asp Arg Arg Ile Met Met Ala Leu Gln His Val Ala Gln His
 85 90 95
 Lys Asn Ile Ala Phe Gln Ser Phe Tyr Asn Leu Ile Asp Thr Val Tyr
 100 105 110
 Lys Asp Gln His Phe Thr Met Phe Glu Thr Asp Ala Glu Leu Phe Gly
 115 120 125
 Tyr Cys Tyr Gly Val Ala Gly Thr Val Ser Glu Val Leu Thr Pro Ile
 130 135 140
 Leu Ser Asp His Glu Thr His Gln Thr Tyr Asp Val Ala Arg Arg Leu
 145 150 155 160
 Gly Glu Ser Leu Gln Leu Ile Asn Ile Leu Arg Asp Val Gly Glu Asp
 165 170 175
 Phe Asp Asn Glu Arg Ile Tyr Phe Ser Lys Gln Arg Leu Lys Gln Tyr
 180 185 190
 Glu Val Asp Ile Ala Glu Val Tyr Gln Asn Gly Val Asn Asn His Tyr
 195 200 205
 Ile Asp Leu Trp Glu Tyr Tyr Ala Ala Ile Ala Glu Lys Asp Phe Gln
 210 215 220
 Asp Val Met Asp Gln Ile Lys Val Phe Ser Ile Glu Ala Ser Pro Ile
 225 230 235 240
 Ile Glu Leu Ala Ala Arg Ile Tyr Ile Glu Ile Leu Gly Arg Ser
 245 250 255

<210> 129

<211> 254

<212> PRT

<213> Staphylococcus aureus

<400> 129

Met Thr Met Met Asp Met Asn Phe Lys Tyr Cys His Lys Ile Met Lys
 1 5 10 15

Lys His Ser Lys Ser Phe Ser Tyr Ala Phe Asp Leu Leu Pro Glu Asp
20 25 30

Gln Arg Lys Ala Val Trp Ala Ile Tyr Ala Val Cys Arg Lys Ile Asp
35 40 45

Asp Ser Ile Asp Val Tyr Gly Asp Ile Gln Phe Leu Ile Gln Ile Lys
50 55 60

Glu Asp Ile Gln Ser Ile Glu Lys Tyr Pro Tyr Glu His His His Phe
65 70 75 80

Gln Ser Asp Arg Arg Ile Met Met Ala Leu Gln His Val Ala Gln His
85 90 95

Lys Asn Ile Ala Phe Gln Ser Phe Tyr Asn Leu Ile Asp Thr Val Tyr
100 105 110

Lys Val Asn Ile Leu Gln Cys Leu Lys Arg Thr Leu Glu Leu Phe Gly
115 120 125

Tyr Cys Tyr Gly Val Ala Gly Arg Arg Ser Ser Ile Asp Ala Asp Phe
130 135 140

Ser Asp His Glu Thr His Gln Thr Tyr Asp Val Ala Arg Arg Leu Gly
145 150 155 160

Glu Ser Leu Gln Leu Ile Asn Ile Leu Arg Asp Val Gly Glu Asp Phe
165 170 175

Asp Asn Glu Arg Ile Tyr Phe Ser Lys Gln Arg Leu Lys Gln Tyr Glu
180 185 190

Val Asp Ile Ala Glu Val Tyr Gln Asn Gly Val Asn Asn His Tyr Ile
195 200 205

Asp Leu Trp Glu Tyr Tyr Ala Ala Ile Ala Glu Lys Asp Phe Gln Asp
210 215 220

Val Met Asp Gln Ile Lys Val Phe Ser Ile Glu Ala Ser Pro Ile Ile
225 230 235 240

Glu Leu Ala Ala Arg Ile Tyr Ile Glu Ile Leu Gly Arg Ser
245 250

<210> 130

<211> 436

<212> PRT

<213> Staphylococcus aureus

<400> 130

Met Ser Val Thr Leu Leu Trp Val Val Ser Pro Asn Ser Gln Leu Ser
1 5 10 15

Asn Cys Phe Gly Phe Val Asp Ser Val Arg Glu Glu Asn Arg Leu Phe

	20		25		30
Tyr Ser Ser Arg Phe Leu Tyr Gln His Gln Thr Arg Thr Ala Val Phe	35	40		45	
Asn Ser Arg Pro Lys Gln Phe Asn Asn Ser Asn Lys Gln Arg Arg Asn	50	55		60	
Ser Tyr Pro Leu Asp Thr Asp Leu Arg His Pro Cys Ser Ser Gly Ile	65	70		75	80
Asp Leu Pro Glu Ile Ser Cys Met Val Ala Ser Thr Ala Gly Glu Val	85		90		95
Ala Met Ser Ser Glu Glu Met Val Tyr Asn Val Val Leu Lys Gln Ala	100		105		110
Ala Leu Val Asn Lys Gln Pro Ser Gly Val Thr Arg Asp Leu Asp Val	115		120		125
Asn Pro Asp Ile Ala Leu Pro Gly Thr Leu Ser Leu Leu Ser Glu Ala	130		135		140
Tyr Asp Arg Cys Gly Glu Val Cys Ala Glu Tyr Ala Lys Thr Phe Tyr	145	150		155	160
Leu Gly Thr Leu Leu Met Thr Ser Glu Arg Arg Arg Ala Ile Trp Ala		165		170	175
Ile Tyr Val Trp Cys Arg Arg Thr Asp Glu Leu Val Asp Gly Pro Asn	180		185		190
Ala Ser His Ile Thr Pro Thr Ala Leu Asp Arg Trp Glu Ser Arg Leu	195		200		205
Glu Asp Leu Phe Arg Gly Arg Pro Phe Asp Met Leu Asp Ala Ala Leu	210		215		220
Ser Asp Thr Val Thr Lys Phe Pro Val Asp Ile Gln Pro Phe Arg Asp	225	230		235	240
Met Ile Glu Gly Met Arg Met Asp Leu Arg Lys Ser Arg Tyr Lys Asn		245		250	255
Phe Asp Glu Leu Tyr Leu Tyr Cys Tyr Tyr Val Ala Gly Thr Val Gly	260		265		270
Leu Met Ser Val Pro Val Met Gly Ile Ala Pro Asp Ser Gln Ala Thr	275		280		285
Thr Glu Ser Val Tyr Asn Ala Ala Leu Ala Leu Gly Ile Ala Asn Gln	290		295		300
Leu Thr Asn Ile Leu Arg Asp Val Gly Glu Asp Ala Arg Arg Gly Arg	305	310		315	320
Val Tyr Leu Pro Gln Asp Glu Leu Ala Gln Ala Gly Leu Ser Asp Asp					

325 330 335
 Asp Ile Phe Ala Gly Glu Val Thr Ile Lys Trp Arg Asn Phe Met Lys
 340 345 350
 Asn Gln Ile Lys Arg Ala Arg Met Phe Phe Asp Met Ala Glu Asn Gly
 355 360 365
 Val Thr Glu Leu Ser Glu Ala Ser Arg Trp Pro Val Trp Ala Ser Leu
 370 375 380
 Leu Leu Tyr Arg Gln Ile Leu Asp Glu Ile Glu Ala Asn Asp Tyr Asn
 385 390 395 400
 Asn Phe Thr Lys Arg Ala Tyr Val Ser Lys Ala Lys Lys Ile Ala Ala
 405 410 415
 Leu Pro Ile Ala Tyr Ala Lys Ser Leu Leu Arg Pro Ser Arg Ile Tyr
 420 425 430
 Thr Ser Lys Ala
 435

<210> 131
 <211> 410
 <212> PRT
 <213> Citrus unshiu

<400> 131
 Met Ala Ile Ile Leu Val Arg Ala Ala Ser Pro Gly Leu Ser Ala Ala
 1 5 10 15
 Asp Ser Ile Ser His Gln Gly Thr Leu Gln Cys Ser Thr Leu Leu Lys
 20 25 30
 Thr Lys Arg Pro Ala Ala Arg Arg Trp Met Pro Cys Ser Leu Leu Gly
 35 40 45
 Leu His Pro Trp Glu Ala Gly Arg Pro Ser Pro Ala Val Tyr Ser Ser
 50 55 60
 Leu Pro Val Asn Pro Ala Gly Glu Ala Val Val Ser Ser Glu Gln Lys
 65 70 75 80
 Val Tyr Asp Val Val Leu Lys Gln Ala Ala Leu Leu Lys Arg Gln Leu
 85 90 95
 Arg Thr Pro Val Leu Asp Ala Arg Pro Gln Asp Met Asp Met Pro Arg
 100 105 110
 Asn Gly Leu Lys Glu Ala Tyr Asp Arg Cys Gly Glu Ile Cys Glu Glu
 115 120 125
 Tyr Ala Lys Thr Phe Tyr Leu Gly Thr Met Leu Met Thr Glu Glu Arg
 130 135 140

000000

```
<210> 132
<211> 38
<212> PRT
<213> Homo sapiens
```


210 215 220

Lys
225

<210> 134
<211> 661
<212> PRT
<213> Homo sapiens

<400> 134
Met Ala Phe Asp Val Ser Cys Phe Phe Trp Val Val Leu Phe Ser Ala
1 5 10 15
Gly Cys Lys Val Ile Thr Ser Trp Asp Gln Met Cys Ile Glu Lys Glu
20 25 30
Ala Asn Lys Thr Tyr Asn Cys Glu Asn Leu Gly Leu Ser Glu Ile Pro
35 40 45
Asp Thr Leu Pro Asn Thr Thr Glu Phe Leu Glu Phe Ser Phe Asn Phe
50 55 60
Leu Pro Thr Ile His Asn Arg Thr Phe Ser Arg Leu Met Asn Leu Thr
65 70 75 80
Phe Leu Asp Leu Thr Arg Cys Gln Ile Asn Trp Ile His Glu Asp Thr
85 90 95
Phe Gln Ser His His Gln Leu Ser Thr Leu Val Leu Thr Gly Asn Pro
100 105 110
Leu Ile Phe Met Ala Glu Thr Ser Leu Asn Gly Pro Lys Ser Leu Lys
115 120 125
His Leu Phe Leu Ile Gln Thr Gly Ile Ser Asn Leu Glu Phe Ile Pro
130 135 140
Val His Asn Leu Glu Asn Leu Glu Ser Leu Tyr Leu Gly Ser Asn His
145 150 155 160
Ile Ser Ser Ile Lys Phe Pro Lys Asp Phe Pro Ala Arg Asn Leu Lys
165 170 175
Val Leu Asp Phe Gln Asn Asn Ala Ile His Tyr Ile Ser Arg Glu Asp
180 185 190
Met Arg Ser Leu Glu Gln Ala Ile Asn Leu Ser Leu Asn Phe Asn Gly
195 200 205
Asn Asn Val Lys Gly Ile Glu Leu Gly Ala Phe Asp Ser Thr Val Phe
210 215 220
Gln Ser Leu Asn Phe Gly Gly Thr Pro Asn Leu Ser Val Ile Phe Asn
225 230 235 240

Gly Leu Gln Asn Ser Thr Thr Gln Ser Leu Trp Leu Gly Thr Phe Glu
 245 250 255
 Asp Ile Asp Asp Glu Asp Ile Ser Ser Ala Met Leu Lys Gly Leu Cys
 260 265 270
 Glu Met Ser Val Glu Ser Leu Asn Leu Gln Glu His Arg Phe Ser Asp
 275 280 285
 Ile Ser Ser Thr Thr Phe Gln Cys Phe Thr Gln Leu Gln Glu Leu Asp
 290 295 300
 Leu Thr Ala Thr His Leu Lys Gly Leu Pro Ser Gly Met Lys Gly Leu
 305 310 315 320
 Asn Leu Leu Lys Lys Leu Val Leu Ser Val Asn His Phe Asp Gln Leu
 325 330 335
 Cys Gln Ile Ser Ala Ala Asn Phe Pro Ser Leu Thr His Leu Tyr Ile
 340 345 350
 Arg Gly Asn Val Lys Lys Leu His Leu Gly Val Gly Cys Leu Glu Lys
 355 360 365
 Leu Gly Asn Leu Gln Thr Leu Asp Leu Ser His Asn Asp Ile Glu Ala
 370 375 380
 Ser Asp Cys Cys Ser Leu Gln Leu Lys Asn Leu Ser His Leu Gln Thr
 385 390 395 400
 Leu Asn Leu Ser His Asn Glu Pro Leu Gly Leu Gln Ser Gln Ala Phe
 405 410 415
 Lys Glu Cys Pro Gln Leu Glu Leu Leu Asp Leu Ala Phe Thr Arg Leu
 420 425 430
 His Ile Asn Ala Pro Gln Ser Pro Phe Gln Asn Leu His Phe Leu Gln
 435 440 445
 Val Leu Asn Leu Thr Tyr Cys Phe Leu Asp Thr Ser Asn Gln His Leu
 450 455 460
 Leu Ala Gly Leu Pro Val Leu Arg His Leu Asn Leu Lys Gly Asn His
 465 470 475 480
 Phe Gln Asp Gly Thr Ile Thr Lys Thr Asn Leu Leu Gln Thr Val Gly
 485 490 495
 Ser Leu Glu Val Leu Ile Leu Ser Ser Cys Gly Leu Leu Ser Ile Asp
 500 505 510
 Gln Gln Ala Phe His Ser Leu Gly Lys Met Ser His Val Asp Leu Ser
 515 520 525
 His Asn Ser Leu Thr Cys Asp Ser Ile Asp Ser Leu Ser His Leu Lys
 530 535 540

243

Leu His Asn Gln Lys Thr Leu Glu Ser Leu Tyr Leu Gly Ser Asn His
 145 150 155 160
 Ile Ser Ser Ile Lys Leu Pro Lys Gly Phe Pro Thr Glu Lys Leu Lys
 165 170 175
 Val Leu Asp Phe Gln Asn Asn Ala Ile His Tyr Leu Ser Lys Glu Asp
 180 185 190
 Met Ser Ser Leu Gln Gln Ala Thr Asn Leu Ser Leu Asn Leu Asn Gly
 195 200 205
 Asn Asp Ile Ala Gly Ile Glu Pro Gly Ala Phe Asp Ser Ala Val Phe
 210 215 220
 Gln Ser Leu Asn Phe Gly Gly Thr Gln Asn Leu Leu Val Ile Phe Lys
 225 230 235 240
 Gly Leu Lys Asn Ser Thr Ile Gln Ser Leu Trp Leu Gly Thr Phe Glu
 245 250 255
 Asp Met Asp Asp Glu Asp Ile Ser Pro Ala Val Phe Glu Gly Leu Cys
 260 265 270
 Glu Met Ser Val Glu Ser Ile Asn Leu Gln Lys His Tyr Phe Phe Asn
 275 280 285
 Ile Ser Ser Asn Thr Phe His Cys Phe Ser Gly Leu Gln Glu Leu Asp
 290 295 300
 Leu Thr Ala Thr His Leu Ser Glu Leu Pro Ser Gly Leu Val Gly Leu
 305 310 315 320
 Ser Thr Leu Lys Lys Leu Val Leu Ser Ala Asn Lys Phe Glu Asn Leu
 325 330 335
 Cys Gln Ile Ser Ala Ser Asn Phe Pro Ser Leu Thr His Leu Ser Ile
 340 345 350
 Lys Gly Asn Thr Lys Arg Leu Glu Leu Gly Thr Gly Cys Leu Glu Asn
 355 360 365
 Leu Glu Asn Leu Arg Glu Leu Asp Leu Ser His Asp Asp Ile Glu Thr
 370 375 380
 Ser Asp Cys Cys Asn Leu Gln Leu Arg Asn Leu Ser His Leu Gln Ser
 385 390 395 400
 Leu Asn Leu Ser Tyr Asn Glu Pro Leu Ser Leu Lys Thr Glu Ala Phe
 405 410 415
 Lys Glu Cys Pro Gln Leu Glu Leu Leu Asp Leu Ala Phe Thr Arg Leu
 420 425 430
 Lys Val Lys Asp Ala Gln Ser Pro Phe Gln Asn Leu His Leu Leu Lys
 435 440 445

303335-303618

<210> 137
 <211> 25
 <212> PRT
 <213> Homo sapiens

<400> 137
 Asn Leu Glu Glu Leu Asp Leu Ser Asn Asn Asn Leu Ser Gly Ser Leu
 1 5 10 15
 Pro Pro Glu Ser Phe Gly Asn Leu Pro
 20 25

<210> 138
 <211> 25
 <212> PRT
 <213> Homo sapiens

<400> 138
 Asn Leu Glu Glu Leu Asp Leu Ser Asn Asn Asn Leu Ser Gly Ser Leu
 1 5 10 15
 Pro Pro Glu Ser Phe Gly Asn Leu Pro
 20 25

<210> 139
 <211> 25
 <212> PRT
 <213> Homo sapiens

<400> 139
 Asn Leu Glu Glu Leu Asp Leu Ser Asn Asn Asn Leu Ser Gly Ser Leu
 1 5 10 15
 Pro Pro Glu Ser Phe Gly Asn Leu Pro
 20 25

<210> 140
 <211> 54
 <212> PRT
 <213> Homo sapiens

<400> 140
 Asn Pro Phe Asn Cys Asp Cys Glu Leu Arg Trp Leu Leu Arg Trp Leu
 1 5 10 15
 Arg Glu Thr Asn Pro Arg Arg Leu Glu Asp Gln Glu Asp Leu Arg Cys
 20 25 30
 Ala Ser Pro Glu Ser Leu Arg Gly Gln Pro Leu Leu Glu Leu Leu Pro
 35 40 45
 Ser Asp Phe Ser Cys Pro
 50

<210> 141
 <211> 330
 <212> PRT
 <213> Homo sapiens

<400> 141

```

Met Pro Gly Pro Ala Thr Asp Ala Gly Lys Ile Pro Phe Cys Asp Ala
 1              5              10              15

Lys Glu Glu Ile Arg Ala Gly Leu Glu Ser Ser Glu Gly Gly Gly Gly
      20              25              30

Pro Glu Arg Pro Gly Ala Arg Gly Gln Arg Gln Asn Ile Val Trp Arg
      35              40              45

Asn Val Val Leu Met Ser Leu Leu His Leu Gly Ala Val Tyr Ser Leu
      50              55              60

Val Leu Ile Pro Lys Ala Lys Pro Leu Thr Leu Leu Trp Ala Tyr Phe
      65              70              75              80

Cys Phe Leu Leu Ala Ala Leu Gly Val Thr Ala Gly Ala His Arg Leu
      85              90              95

Trp Ser His Arg Ser Tyr Arg Ala Lys Leu Pro Leu Arg Ile Phe Leu
      100             105             110

Ala Val Ala Asn Ser Met Ala Phe Gln Asn Asp Ile Phe Glu Trp Ser
      115             120             125

Arg Asp His Arg Ala His His Lys Tyr Ser Glu Thr Asp Ala Asp Pro
      130             135             140

His Asn Ala Arg Arg Gly Phe Phe Phe Ser His Ile Gly Trp Leu Phe
      145             150             155             160

Val Arg Lys His Arg Asp Val Ile Glu Lys Gly Arg Lys Leu Asp Val
      165             170             175

Thr Asp Leu Leu Ala Asp Pro Val Val Arg Ile Gln Arg Lys Tyr Tyr
      180             185             190

Lys Ile Ser Val Val Leu Met Cys Phe Val Val Pro Thr Leu Val Pro
      195             200             205

Trp Tyr Ile Trp Gly Glu Ser Leu Trp Asn Ser Tyr Phe Leu Ala Ser
      210             215             220

Ile Leu Arg Tyr Thr Ile Ser Leu Asn Ile Ser Trp Leu Val Asn Ser
      225             230             235             240

Ala Ala His Met Tyr Gly Asn Arg Pro Tyr Asp Lys His Ile Ser Pro
      245             250             255

Arg Gln Asn Pro Leu Val Ala Leu Gly Ala Ile Gly Glu Gly Phe His
      260             265             270

```

Asn Tyr His His Thr Phe Pro Phe Asp Tyr Ser Ala Ser Glu Phe Gly
 275 280 285

Leu Asn Phe Asn Pro Thr Thr Trp Phe Ile Asp Phe Met Cys Trp Leu
 290 295 300

Gly Leu Ala Thr Asp Arg Lys Arg Ala Thr Lys Pro Met Ile Glu Ala
 305 310 315 320

Arg Lys Ala Arg Thr Gly Asp Ser Ser Ala
 325 330

<210> 142

<211> 357

<212> PRT

<213> Gallus gallus

<400> 142

Met Pro Ala His Leu Leu Gln Glu Glu Glu Phe Ser Ser Ala Ser Ser
 1 5 10 15

Thr Thr Thr Val Thr Ser Arg Val Thr Lys Asn Gly Asn Val Ile Met
 20 25 30

Glu Lys Asp Leu Leu Asn His Asp Asp Val Ala Ala Glu Arg Gly Met
 35 40 45

Val Asp Asp Leu Phe Asp Glu Thr Tyr Arg Glu Lys Glu Gly Pro Lys
 50 55 60

Pro Pro Leu Arg Tyr Val Trp Arg Asn Ile Ile Leu Met Ser Leu Leu
 65 70 75 80

His Leu Gly Ala Ile Ile Gly Leu Thr Leu Ile Pro Ser Ala Lys Ile
 85 90 95

Gln Thr Leu Ala Trp Ala Ile Leu Cys Phe Val Leu Ser Ala Leu Gly
 100 105 110

Ile Thr Ala Gly Ser His Arg Leu Trp Ser His Arg Ser Tyr Lys Ala
 115 120 125

Thr Leu Pro Leu Arg Ile Phe Leu Thr Ile Ala Asn Ser Met Ala Phe
 130 135 140

Gln Asn Asp Ile Tyr Glu Trp Ala Arg Asp His Arg Val His His Lys
 145 150 155 160

Phe Ser Glu Thr His Ala Asp Pro His Asn Ala Met Arg Gly Tyr Phe
 165 170 175

Phe Ser His Met Ala Trp Leu Leu Val Arg Lys His Pro Asp Val Ile
 180 185 190

Glu Lys Gly Gln Lys Leu Asp Leu Ser Asp Leu Lys Ala Asp Lys Val

[illegible]

```
<210> 143
<211> 324
<212> PRT
<213> Ctenopharyngodon idella
```

```

<400> 143
Met Pro Asp Met Asp Ile Lys Ala Gln Ala Arg Arg Ala Glu Thr Val
  1                               10                      15

Glu Asp Val Phe Asp His Thr Tyr Lys Glu Lys Glu Gly Pro Lys Pro
      20                      25                      30

Pro Ile Val Val Val Trp Arg Asn Val Ile Leu Met Thr Leu Leu His
      35                      40                      45

Thr Gly Ala Leu Tyr Gly Leu Leu Leu Ile Pro Ser Ala Ser Phe Leu
      50                      55                      60

Thr Leu Ile Trp Thr Phe Ala Cys Phe Val Tyr Ser Ala Leu Gly Ile
      65                      70                      75                      80

Thr Ala Gly Ala His Arg Leu Trp Ser His Arg Ser Tyr Lys Ala Ser
      85                      90                      95

```

Leu Pro Leu Arg Ile Phe Leu Ala Phe Ala Asn Ser Met Ala Phe Gln
 100 105 110
 Asn Asp Ile Tyr Glu Trp Ser Arg Asp His Arg Val His His Lys Tyr
 115 120 125
 Ser Glu Thr Asp Ala Asp Pro His Asn Ala Val Arg Gly Phe Phe Phe
 130 135 140
 Ala His Ile Glu Trp Leu Leu Val Arg Lys His Pro Asp Val Ile Glu
 145 150 155 160
 Lys Gly Arg Lys Leu Glu Ile Ser Asp Leu Lys Ala Asp Lys Val Val
 165 170 175
 Met Phe Gln Arg Arg His Tyr Lys Pro Ser Val Leu Leu Met Cys Phe
 180 185 190
 Phe Val Pro Met Phe Val Pro Trp Phe Phe Trp Gly Glu Thr Leu Trp
 195 200 205
 Val Ala Tyr Phe Val Pro Thr Val Leu Arg Tyr Thr Leu Val Leu Asn
 210 215 220
 Ala Thr Trp Leu Val Asn Ser Ala Ala His Met Trp Gly Asn Arg Pro
 225 230 235 240
 Tyr Asp Ser Thr Ile Asn Pro Arg Glu Asn Arg Phe Val Thr Phe Ser
 245 250 255
 Ala Ile Gly Glu Gly Phe His Asn Tyr His His Thr Phe Pro Phe Asp
 260 265 270
 Tyr Ser Thr Ser Glu Tyr Gly Trp Lys Leu Asn Leu Thr Thr Cys Phe
 275 280 285
 Ile Asp Leu Met Cys Phe Leu Gly Leu Ala Ser Asp Pro Lys Arg Val
 290 295 300
 Ser Arg Glu Ala Val Leu Ala Arg Val Gln Arg Thr Gly Asp Gly Ser
 305 310 315 320
 His Arg Ser Gly

<210> 144
 <211> 327
 <212> PRT
 <213> Cyprinus carpio

<400> 144
 Met Pro Asp Arg Glu Ile Lys Ser Pro Ile Trp His Pro Glu Pro Gly
 1 5 10 15
 Thr Val Glu Asp Val Phe Asp His Thr Tyr Lys Glu Lys Glu Gly Pro
 20 25 30

Lys Pro Pro Thr Val Ile Val Trp Arg Asn Val Ile Leu Met Ser Leu
 35 40 45
 Leu His Leu Gly Ala Leu Tyr Gly Leu Phe Leu Phe Pro Ser Ala Arg
 50 55 60
 Ala Leu Thr Trp Ile Trp Phe Phe Gly Cys Leu Leu Phe Ser Ala Leu
 65 70 75 80
 Gly Ile Thr Ala Gly Ala His Arg Leu Trp Ser His Arg Ser Tyr Lys
 85 90 95
 Ala Ser Leu Pro Leu Gln Ile Phe Leu Ala Leu Gly Asn Ser Met Ala
 100 105 110
 Phe Gln Asn Asp Ile Tyr Glu Trp Ser Arg Asp His Arg Val His His
 115 120 125
 Lys Tyr Ser Glu Thr Asp Ala Asp Pro His Asn Ala Val Arg Gly Phe
 130 135 140
 Phe Phe Ser His Val Gly Trp Leu Leu Val Arg Lys His Pro Asp Val
 145 150 155 160
 Ile Glu Lys Gly Arg Lys Leu Glu Leu Ser Asp Leu Lys Ala Asp Lys
 165 170 175
 Val Val Met Phe Gln Arg Arg Phe Tyr Lys Pro Ser Val Leu Leu Met
 180 185 190
 Cys Phe Phe Val Pro Thr Phe Val Pro Trp Tyr Val Trp Gly Glu Ser
 195 200 205
 Leu Trp Val Ala Tyr Phe Val Pro Ala Leu Leu Arg Tyr Ala Leu Val
 210 215 220
 Leu Asn Ala Thr Trp Leu Val Asn Ser Ala Ala His Met Trp Gly Asn
 225 230 235 240
 Arg Pro Tyr Asp Ser Ser Ile Asn Pro Arg Glu Asn Arg Phe Val Thr
 245 250 255
 Phe Ser Ala Ile Gly Glu Gly Phe His Asn Tyr His His Thr Phe Pro
 260 265 270
 Phe Asp Tyr Ala Thr Ser Glu Phe Gly Cys Lys Leu Asn Leu Thr Thr
 275 280 285
 Cys Cys Phe Ile Asp Leu Met Cys Phe Leu Gly Leu Ala Arg Glu Pro
 290 295 300
 Lys Arg Val Ser Arg Glu Ala Val Leu Ala Arg Ala Gln Arg Thr Gly
 305 310 315 320
 Asp Gly Ser His Trp Ser Gly
 325

<210> 145
 <211> 324
 <212> PRT
 <213> Cyprinus carpio

<400> 145
 Met Pro Asp Arg Asp Ile Lys Ser Pro Ile Trp His Pro Glu Thr Val
 1 5 10 15
 Glu Asp Val Phe Asp His Thr Tyr Lys Glu Lys Glu Gly Pro Lys Pro
 20 25 30
 Pro Thr Val Ile Val Trp Arg Asn Val Leu Leu Met Ala Phe Leu His
 35 40 45
 Thr Gly Ala Leu Tyr Gly Leu Val Leu Phe Pro Ser Ala Ser Val Leu
 50 55 60
 Thr Trp Ile Trp Phe Leu Ala Cys Phe Val Phe Ser Ala Leu Gly Val
 65 70 75 80
 Thr Ala Gly Ala His Arg Leu Trp Ser Arg Arg Ser Tyr Lys Ala Ser
 85 90 95
 Leu Pro Leu Arg Ile Phe Leu Ala Phe Ala Asn Ser Met Gly Phe Gln
 100 105 110
 Asn Asp Ile Tyr Glu Trp Ser Arg Asp His Arg Val His His Lys Tyr
 115 120 125
 Ser Glu Thr Asp Ala Asp Pro His Asn Ala Val Arg Gly Phe Phe Phe
 130 135 140
 Ser His Ile Gly Trp Leu Leu Val Arg Lys His Pro Asp Val Ile Glu
 145 150 155 160
 Lys Gly Arg Lys Leu Glu Leu Ser Asp Leu Lys Ala Asp Lys Val Val
 165 170 175
 Met Phe Gln Arg Arg Phe Tyr Lys Ser Ser Val Leu Leu Met Cys Phe
 180 185 190
 Phe Val Pro Thr Phe Val Pro Trp Tyr Val Trp Gly Glu Ser Leu Trp
 195 200 205
 Val Ala Tyr Phe Val Pro Ala Val Leu Arg Tyr Ala Leu Val Leu Asn
 210 215 220
 Ala Thr Trp Leu Val Asn Ser Ala Ala His Met Trp Gly Asn Arg Pro
 225 230 235 240
 Tyr Asp Ser Ser Ile Asn Pro Arg Glu Asn Arg Phe Val Ala Phe Ser
 245 250 255
 Ala Ile Gly Glu Gly Phe His Asn Tyr His His Thr Phe Pro Phe Asp

260 265 270
Tyr Ala Thr Ser Glu Phe Gly Cys Lys Leu Asn Leu Thr Thr Cys Phe
275 280 285
Ile Asp Leu Met Cys Phe Leu Gly Leu Ala Arg Glu Pro Lys Arg Val
290 295 300
Ser Arg Glu Ala Ala Leu Ala Arg Ala Gln Arg Thr Gly Asp Gly Ser
305 310 315 320
His Arg Thr Gly

<210> 146
<211> 248
<212> PRT
<213> Homo sapiens

<400> 146
Ile Leu Leu Gly Ala Leu His Leu Gly Ala Leu Tyr Leu Leu Ala Leu
1 5 10 15
Leu Pro Thr Glu Leu Lys Trp Lys Thr Val Ile Val Ala Leu Leu Leu
20 25 30
Tyr Val Ile Thr Gly Gly Leu Gly Ile Thr Ala Gly Tyr His Arg Leu
35 40 45
Trp Ser His Arg Ser Tyr Lys Ala Lys Leu Pro Leu Arg Ile Phe Leu
50 55 60
Ala Ile Phe Gly Thr Leu Ala Val Gln Gly Ser Ile Tyr Glu Trp Ala
65 70 75 80
Arg Asp His Arg Ala His His Lys Tyr Ser Asp Thr Asp Ala Asp Pro
85 90 95
His Asp Ala Asn Arg Gly Phe Phe Phe Ser His Val Gly Trp Leu Leu
100 105 110
Val Lys Lys His Pro Ala Val Lys Glu Lys Gly Lys Lys Leu Asp Leu
115 120 125
Ser Asp Leu Lys Ala Asp Pro Val Val Arg Phe Gln His Arg Tyr Tyr
130 135 140
Ile Pro Leu Met Val Leu Met Gly Phe Ile Leu Pro Thr Leu Val Pro
145 150 155 160
Gly Tyr Leu Trp Gly Glu Thr Phe Trp Gly Gly Phe Val Trp Ala Gly
165 170 175
Phe Leu Arg Leu Val Phe Val Leu His Ala Thr Trp Cys Val Asn Ser
180 185 190

Ala Ala His Lys Phe Gly Tyr Arg Pro Tyr Asp Ser Arg Ile Thr Pro
195 200 205

Arg Asn Asn Trp Leu Val Ala Leu Val Thr Phe Gly Glu Gly Trp His
210 215 220

Asn Phe His His Thr Phe Pro Tyr Asp Tyr Arg Asn Ala Glu Lys Trp
225 230 235 240

Lys Trp Glu Trp Asp Leu Thr Lys
245

<210> 147

<211> 389

<212> PRT

<213> Homo sapiens

<400> 147

Met Leu Glu Glu Pro Arg Pro Arg Pro Pro Pro Ser Gly Leu Ala Gly
1 5 10 15

Leu Leu Phe Leu Ala Leu Cys Ser Arg Ala Leu Ser Asn Glu Ile Leu
20 25 30

Gly Leu Lys Leu Pro Gly Glu Pro Pro Leu Thr Ala Asn Thr Val Cys
35 40 45

Leu Thr Leu Ser Gly Leu Ser Lys Arg Gln Leu Gly Leu Cys Leu Arg
50 55 60

Asn Pro Asp Val Thr Ala Ser Ala Leu Gln Gly Leu His Ile Ala Val
65 70 75 80

His Glu Cys Gln His Gln Leu Arg Asp Gln Arg Trp Asn Cys Ser Ala
85 90 95

Leu Glu Gly Gly Gly Arg Leu Pro His His Ser Ala Ile Leu Lys Arg
100 105 110

Gly Phe Arg Glu Ser Ala Phe Ser Phe Ser Met Leu Ala Ala Gly Val
115 120 125

Met His Ala Val Ala Thr Ala Cys Ser Leu Gly Lys Leu Val Ser Cys
130 135 140

Gly Cys Gly Trp Lys Gly Ser Gly Glu Gln Asp Arg Leu Arg Ala Lys
145 150 155 160

Leu Leu Gln Leu Gln Ala Leu Ser Arg Gly Lys Ser Phe Pro His Ser
165 170 175

Leu Pro Ser Pro Gly Pro Gly Ser Ser Pro Ser Pro Gly Pro Gln Asp
180 185 190

Thr Trp Glu Trp Gly Gly Cys Asn His Asp Met Asp Phe Gly Glu Lys
195 200 205

65											70											75											80
His	Glu	Cys	Gln	His	Gln	Leu	Arg	Asp	Gln	Arg	Trp	Asn	Cys	Ser	Ala																		
				85											90											95							
Leu	Glu	Gly	Gly	Gly	Arg	Leu	Pro	His	His	Ser	Ala	Ile	Leu	Lys	Arg																		
				100											105											110							
Gly	Phe	Arg	Glu	Ser	Ala	Phe	Ser	Phe	Ser	Met	Leu	Ala	Ala	Gly	Val																		
				115											120											125							
Met	His	Ala	Val	Ala	Thr	Ala	Cys	Ser	Leu	Gly	Lys	Leu	Val	Ser	Cys																		
				130											135											140							
Gly	Cys	Gly	Trp	Lys	Gly	Ser	Gly	Glu	Gln	Asp	Arg	Leu	Arg	Ala	Lys																		
145					150											155											160						
Leu	Leu	Gln	Leu	Gln	Ala	Leu	Ser	Arg	Gly	Lys	Ser	Phe	Pro	His	Ser																		
				165											170											175							
Leu	Pro	Ser	Pro	Gly	Pro	Gly	Ser	Ser	Pro	Ser	Pro	Gly	Pro	Gln	Asp																		
				180											185											190							
Thr	Trp	Glu	Trp	Gly	Gly	Cys	Asn	His	Asp	Met	Asp	Phe	Gly	Glu	Lys																		
				195											200											205							
Phe	Ser	Arg	Asp	Phe	Leu	Asp	Ser	Arg	Glu	Ala	Pro	Arg	Asp	Ile	Gln																		
				210											215											220							
Ala	Arg	Met	Arg	Ile	His	Asn	Asn	Arg	Val	Gly	Arg	Gln	Val	Val	Thr																		
225					230											235											240						
Glu	Asn	Leu	Lys	Arg	Lys	Cys	Lys	Cys	His	Gly	Thr	Ser	Gly	Ser	Cys																		
				245											250											255							
Gln	Phe	Lys	Thr	Cys	Trp	Arg	Ala	Ala	Pro	Glu	Phe	Arg	Ala	Val	Gly																		
				260											265											270							
Ala	Ala	Leu	Arg	Glu	Arg	Leu	Gly	Arg	Ala	Ile	Phe	Ile	Asp	Thr	His																		
				275											280											285							
Asn	Arg	Asn	Ser	Gly	Ala	Phe	Gln	Pro	Arg	Leu	Arg	Pro	Arg	Arg	Leu																		
				290											295											300							
Ser	Gly	Glu	Leu	Val	Tyr	Phe	Glu	Lys	Ser	Pro	Asp	Phe	Cys	Glu	Arg																		
305					310											315											320						
Asp	Pro	Thr	Met	Gly	Ser	Pro	Gly	Thr	Arg	Gly	Arg	Ala	Cys	Asn	Lys																		
				325											330											335							
Thr	Ser	Arg	Leu	Leu	Asp	Gly	Cys	Gly	Ser	Leu	Cys	Cys	Gly	Arg	Gly																		
				340											345											350							
His	Asn	Val	Leu	Arg	Gln	Thr	Arg	Val	Glu	Arg	Cys	His	Cys	Arg	Phe																		
				355											360											365							
His	Trp	Cys	Cys	Tyr	Val	Leu	Cys	Asp	Glu	Cys	Lys	Val	Thr	Glu	Trp																		

Glu Asn Leu Lys Arg Lys Cys Lys Cys His Gly Thr Ser Gly Ser Cys
245 250 255

Gln Phe Lys Thr Cys Trp Arg Ala Ala Pro Glu Phe Arg Ala Ile Gly
260 265 270

Ala Ala Leu Arg Glu Arg Leu Ser Arg Ala Ile Phe Ile Asp Thr His
275 280 285

Asn Arg Asn Ser Glu Ala Phe Gln Pro Arg Leu Arg Pro Arg Arg Leu
290 295 300

Ser Gly Glu Leu Val Tyr Phe Glu Lys Ser Pro Asp Phe Cys Glu Arg
305 310 315 320

Asp Pro Thr Leu Gly Ser Pro Gly Thr Arg Gly Arg Ala Cys Asn Lys
325 330 335

Thr Ser Arg Leu Leu Asp Gly Cys Gly Ser Leu Cys Cys Gly Arg Gly
340 345 350

His Asn Val Leu Arg Gln Thr Arg Val Glu Arg Cys His Cys Arg Phe
355 360 365

His Trp Cys Cys Tyr Val Leu Cys Asp Glu Cys Lys Val Thr Glu Trp
370 375 380

Val Asn Val Cys Lys
385

<210> 150
<211> 390
<212> PRT
<213> Takifugu rubripes

<400> 150
Met Glu Pro Pro His Lys Phe Arg Trp Asp Lys Phe Leu Ile Leu Ala
1 5 10 15

Thr Ala Leu Met Ser Pro Ala Phe Thr Val Leu Cys Asn Asp Ile Leu
20 25 30

Ser Leu Lys Val Ala Gly Glu Pro Val Leu Thr Pro Asn Ser Val Cys
35 40 45

Leu Lys Leu Ala Gly Leu Ser Lys Arg Gln Met Arg Met Cys Val Arg
50 55 60

Ser Pro Asp Ala Thr Ala Ser Ala Leu Gln Gly Ile Gln Val Ala Ile
65 70 75 80

His Glu Cys Gln Tyr Gln Leu Arg Asp Gln Arg Trp Asn Cys Ser Ser
85 90 95

Leu Glu Gly Leu Gly Lys Leu Pro His His Asn Thr Ile Leu Asn Arg
100 105 110

Gly Phe Arg Glu Ser Ala Phe Ser Leu Ala Met Leu Ala Ala Gly Val
115 120 125

Ala His Ser Val Ala Ser Ala Cys Ser Met Gly Lys Leu Arg Gly Cys
130 135 140

Gly Cys Glu Ala Lys Arg Arg Gln Asp Asp Asp Lys Ile Arg Leu Lys
145 150 155 160

Leu Thr Gln Leu Gln Leu Gln Ser Leu Gln Lys Asp Asp Leu Ser Ser
165 170 175

Met Gln Glu Thr Trp Glu Trp Gly Gly Cys Ser His Asp Val Arg Tyr
180 185 190

Gly Asp Arg Phe Ser Arg Asp Trp Leu Asp Ser Arg Gly Ser Pro Arg
195 200 205

Asp Ile His Ala Arg Met Lys Ile His Asn Asn Arg Val Gly Arg Gln
210 215 220

Ile Val Thr Asp Asn Met Lys Arg Lys Cys Lys Cys His Gly Thr Ser
225 230 235 240

Gly Ser Cys Gln Phe Gln Thr Cys Trp His Val Ser Pro Glu Phe Arg
245 250 255

Leu Val Gly Ser Leu Leu Lys Glu Lys Phe Leu Ser Ala Ile Leu Val
260 265 270

Asn Ser Gln Asn Lys Asn Asn Gly Val Phe Asn Pro Arg Ile Gly Ser
275 280 285

Gly Val Ser Gly Ser Thr Gly Gly Leu Asn Gly Gly Arg Arg Arg Ser
290 295 300

Met Ser Arg Glu Leu Val Tyr Phe Glu Lys Ser Pro Asp Phe Cys Glu
305 310 315 320

Pro Asn Leu Ser Val Asp Ser Ala Gly Thr Gln Gly Arg Ile Cys Asn
325 330 335

Lys Thr Ser Gln Ser Thr Asp Ser Cys Gly Ser Leu Cys Cys Gly Arg
340 345 350

Gly His Asn Ile Leu Lys Lys Thr His Ser Glu Arg Cys Asn Cys Arg
355 360 365

Phe His Trp Cys Cys Tyr Val Leu Cys Glu Glu Cys Arg Leu Thr Glu
370 375 380

Trp Val Asn Val Cys Lys
385 390

<210> 151

... ..

275 280 285
Leu Leu Arg Asn Arg Phe His Arg Ala Thr Leu Ile Arg Pro His Asn
290 295 300
Arg Asn Gly Gly Gln Leu Glu Pro Gly Pro Ala Gly Ala Pro Ser Pro
305 310 315 320
Ala Pro Gly Thr Pro Gly Leu Arg Arg Arg Ala Ser His Ser Asp Leu
325 330 335
Val Tyr Phe Glu Lys Ser Pro Asp Phe Cys Glu Arg Glu Pro Arg Leu
340 345 350
Asp Ser Ala Gly Thr Val Gly Arg Leu Cys Asn Lys Ser Ser Thr Gly
355 360 365
Pro Asp Gly Cys Gly Ser Met Cys Cys Gly Arg Gly His Asn Ile Leu
370 375 380
Arg Gln Thr Arg Ser Glu Arg Cys His Cys Arg Phe His Trp Cys Cys
385 390 395 400
Phe Val Val Cys Glu Glu Cys Arg Ile Thr Glu Trp Val Ser Val Cys
405 410 415

Lys

<210> 152
<211> 115
<212> PRT
<213> Homo sapiens

<400> 152
Leu Cys Arg Ser Leu Pro Gly Leu Ser Pro Arg Gln Arg Gln Leu Cys
1 5 10 15
Arg Arg Asn Pro Asp Val Met Ala Ser Val Ser Glu Gly Ala Gln Leu
20 25 30
Ala Ile Gln Glu Cys Gln His Gln Phe Arg Gly Arg Arg Trp Asn Cys
35 40 45
Ser Thr Leu Asp Ser Leu Asn Glu Arg Ser Val Phe Gly Lys Val Leu
50 55 60
Lys Lys Gly Thr Arg Glu Thr Ala Phe Val Tyr Ala Ile Ser Ser Ala
65 70 75 80
Gly Val Ala His Ala Val Thr Arg Ala Cys Ser Glu Gly Glu Leu Glu
85 90 95
Ser Cys Gly Cys Asp Asp Lys Arg Lys Ala Asp Glu Glu Arg Leu Arg
100 105 110

Ile Lys Leu
115

<210> 153
<211> 85
<212> PRT
<213> Homo sapiens

<400> 153
Met Ser Cys Ser Cys Gly Gly Asn Cys Gly Cys Gly Ser Gly Cys Lys
1 5 10 15
Cys Gly Ser Gly Cys Gly Gly Cys Lys Met Tyr Pro Asp Leu Ser Glu
20 25 30
Thr Thr Ser Ser Thr Thr Thr Glu Ala Thr Thr Leu Val Leu Gly Val
35 40 45
Ala Pro Glu Lys Lys Ala Gln Phe Glu Gly Ser Glu Met Gly Val Ala
50 55 60
Val Ala Ala Glu Glu Asn Gly Cys Lys Cys Gly Ser Asn Cys Lys Cys
65 70 75 80
Asp Pro Cys Asn Cys
85

<210> 154
<211> 193
<212> PRT
<213> Homo sapiens

<400> 154
Arg Asp Arg Asp Ala Arg Ser Leu Met Asn Leu His Asn Asn Glu Ala
1 5 10 15
Gly Arg Lys Ala Val Lys Ser His Met Arg Arg Glu Cys Lys Cys His
20 25 30
Gly Val Ser Gly Ser Cys Ser Leu Lys Thr Cys Trp Leu Ser Leu Pro
35 40 45
Asp Phe Arg Glu Val Gly Asp Leu Leu Lys Glu Lys Tyr Asp Gly Ala
50 55 60
Ile Glu Val Glu Val Asn Lys Arg Gly Lys Gly Gln Arg Ser Leu Ser
65 70 75 80
Ser Arg Lys Gln Ala Ser Ala Leu Glu Ala Ala Asn Glu Arg Phe Lys
85 90 95
Lys Pro Thr Arg Asn Gln Tyr Thr Asp Leu Val Tyr Leu Glu Lys Ser
100 105 110
Pro Asp Tyr Cys Glu Arg Asp Arg Glu Thr Gly Ser Leu Gly Thr Gln

115 120 125
 Gly Arg Val Cys Asn Lys Thr Ser Lys Gly Leu Gln Trp Arg Asp Gly
 130 135 140
 Cys Glu Leu Leu Cys Cys Gly Arg Gly Tyr Asn Thr Glu Gln Lys Val
 145 150 155 160
 Glu Arg Thr Glu Lys Cys Asn Cys Lys Phe His Asn Gly Trp Cys Cys
 165 170 175
 Tyr Val Lys Cys Glu Glu Cys Thr Glu Val Val Glu Val His Thr Cys
 180 185 190

Lys

<210> 155
 <211> 348
 <212> PRT
 <213> Rattus norvegicus

<400> 155
 Met Val Leu Leu Ala Gln Gly Ala Cys Cys Ser Asn Gln Trp Leu Ala
 1 5 10 15
 Ala Val Leu Leu Ser Leu Cys Ser Cys Leu Pro Ala Gly Gln Ser Val
 20 25 30
 Asp Phe Pro Trp Ala Ala Val Asp Asn Met Leu Val Arg Lys Gly Asp
 35 40 45
 Thr Ala Val Leu Arg Cys Tyr Leu Glu Asp Gly Ala Ser Lys Gly Ala
 50 55 60
 Trp Leu Asn Arg Ser Ser Ile Ile Phe Ala Gly Gly Asp Lys Trp Ser
 65 70 75 80
 Val Asp Pro Arg Val Ser Ile Ser Thr Leu Asn Lys Arg Asp Tyr Ser
 85 90 95
 Leu Gln Ile Gln Asn Val Asp Val Thr Asp Asp Gly Pro Tyr Thr Cys
 100 105 110
 Ser Val Gln Thr Gln His Thr Pro Arg Thr Met Gln Val His Leu Thr
 115 120 125
 Val Gln Val Pro Pro Lys Ile Tyr Asp Ile Ser Asn Asp Met Thr Ile
 130 135 140
 Asn Glu Gly Thr Asn Val Thr Leu Thr Cys Leu Ala Thr Gly Lys Pro
 145 150 155 160
 Glu Pro Ala Ile Ser Trp Arg His Ile Ser Pro Ser Ala Lys Pro Phe
 165 170 175

Glu Asn Gly Gln Tyr Leu Asp Ile Tyr Gly Ile Thr Arg Asp Gln Ala
180 185 190

Gly Glu Tyr Glu Cys Ser Ala Glu Asn Asp Val Ser Phe Pro Asp Val
195 200 205

Lys Lys Val Arg Val Val Val Asn Phe Ala Pro Thr Ile Gln Glu Ile
210 215 220

Lys Ser Gly Thr Val Thr Pro Gly Arg Ser Gly Leu Ile Arg Cys Glu
225 230 235 240

Gly Ala Gly Val Pro Pro Pro Ala Phe Glu Trp Tyr Lys Gly Glu Lys
245 250 255

Arg Leu Phe Asn Gly Gln Gln Gly Ile Ile Ile Gln Asn Phe Ser Thr
260 265 270

Arg Ser Ile Leu Thr Val Thr Asn Val Thr Gln Glu His Phe Gly Asn
275 280 285

Tyr Thr Cys Val Ala Ala Asn Lys Leu Gly Thr Thr Asn Ala Ser Leu
290 295 300

Pro Leu Asn Pro Pro Ser Thr Ala Gln Tyr Gly Ile Thr Gly Ser Ala
305 310 315 320

Cys Asp Leu Phe Ser Cys Trp Ser Leu Ala Leu Thr Leu Ser Ser Val
325 330 335

Ile Ser Ile Phe Tyr Leu Lys Asn Ala Ile Leu Gln
340 345

<210> 156

<211> 352

<212> PRT

<213> Gallus gallus

<400> 156

Met Val Pro Leu Val Arg Gly Ala Gly Gly Ser His Gln Trp Leu Ala
1 5 10 15

Ala Val Leu Leu Gly Leu Cys Cys Leu Leu Pro Ala Gly Arg Leu Ala
20 25 30

Ala Pro Gly Gly Asp Phe Pro Gly Ala Ala Ala Asp Ser Leu Val Val
35 40 45

Arg Lys Gly Asp Thr Ala Val Leu Arg Cys Tyr Leu Glu Asp Gly Ala
50 55 60

Ser Lys Gly Ala Trp Leu Asn Arg Ser Ser Ile Ile Phe Ala Gly Ser
65 70 75 80

Asp Lys Trp Ser Val Asp Pro Arg Val Ser Ile Ala Thr Ala Asn Arg
85 90 95

Arg Glu Tyr Ser Leu Gln Ile Gln Asp Val Asp Val Thr Asp Asp Gly
100 105 110

Pro Tyr Thr Cys Ser Val Gln Thr Gln His Thr Pro Arg Thr Met Gln
115 120 125

Val His Leu Thr Val Gln Val Ser Pro Lys Ile Phe Arg Ile Ser Ser
130 135 140

Asp Ile Val Val Asn Glu Gly Ser Asn Val Thr Leu Val Cys Leu Ala
145 150 155 160

Thr Gly Lys Pro Glu Pro Ser Ile Ser Trp Arg His Ile Ser Pro Ser
165 170 175

Ala Lys Pro Phe Glu Ser Gly Gln Tyr Leu Asp Ile Tyr Gly Ile Thr
180 185 190

Arg Asp Gln Ala Gly Glu Tyr Glu Cys Ser Ala Glu Asn Asp Val Ser
195 200 205

Val Pro Asp Val Lys Lys Val Lys Val Thr Val Asn Phe Ala Pro Thr
210 215 220

Ile Gln Glu Leu Lys Ser Ser Gly Val Met Leu Gly Gly Asn Gly Leu
225 230 235 240

Ile Arg Cys Glu Gly Ala Gly Val Pro Ala Pro Val Phe Glu Trp Tyr
245 250 255

Arg Gly Glu Arg Lys Leu Ile Ser Gly Gln Gln Gly Ile Thr Ile Lys
260 265 270

Asn Tyr Ser Thr Arg Ser Leu Leu Thr Val Thr Asn Val Thr Glu Glu
275 280 285

His Phe Gly Asn Tyr Thr Cys Val Ala Ala Asn Lys Leu Gly Met Thr
290 295 300

Asn Ala Ser Leu Pro Leu Asn Pro Pro Ser Thr Ala Gln Tyr Gly Ile
305 310 315 320

Thr Gly Asp Ala Glu Val Leu Phe Ser Cys Trp Tyr Leu Val Leu Thr
325 330 335

Leu Ser Ser Leu Thr Ser Ile Phe Tyr Leu Lys Asn Ile Ile Leu His
340 345 350

<210> 157
<211> 261
<212> PRT
<213> Gallus gallus

<400> 157

Met Val Pro Leu Val Arg Gly Ala Gly Gly Ser His Gln Trp Leu Ala
 1 5 10 15

Ala Val Leu Leu Gly Leu Cys Cys Leu Leu Pro Ala Gly Arg Leu Ala
 20 25 30

Ala Pro Gly Gly Asp Phe Pro Gly Ala Ala Ala Asp Ser Leu Val Val
 35 40 45

Arg Lys Gly Asp Thr Ala Val Leu Arg Cys Tyr Leu Glu Asp Gly Ala
 50 55 60

Ser Lys Gly Ala Trp Leu Asn Arg Ser Ser Ile Ile Phe Ala Gly Ser
 65 70 75 80

Asp Lys Trp Ser Val Asp Pro Arg Val Ser Ile Ala Thr Ala Asn Arg
 85 90 95

Arg Glu Tyr Ser Leu Gln Ile Gln Asp Val Asp Val Thr Asp Asp Gly
 100 105 110

Pro Tyr Thr Cys Ser Val Gln Thr Gln His Thr Pro Arg Thr Met Gln
 115 120 125

Val His Leu Thr Val Gln Val Ser Pro Lys Ile Phe Arg Ile Ser Ser
 130 135 140

Asp Ile Val Val Asn Glu Gly Ser Asn Val Thr Leu Val Cys Leu Ala
 145 150 155 160

Thr Gly Lys Pro Glu Pro Ser Ile Ser Trp Arg His Ile Ser Pro Ser
 165 170 175

Ala Lys Pro Phe Glu Ser Gly Gln Tyr Leu Asp Ile Tyr Val Ile Thr
 180 185 190

Arg Asp Gln Ala Gly Glu Tyr Glu Cys Ser Ala Glu Asn Asp Val Ser
 195 200 205

Val Pro Asp Val Lys Lys Val Lys Val Thr Val Asn Ser Pro Ser Thr
 210 215 220

Ala Gln Tyr Gly Ile Thr Gly Asp Ala Glu Val Leu Phe Ser Cys Trp
 225 230 235 240

Tyr Leu Val Leu Thr Leu Ser Ser Leu Thr Ser Ile Phe Tyr Leu Lys
 245 250 255

Asn Ile Ile Leu His
 260

<210> 158

<211> 338

<212> PRT

<213> Homo sapiens

<400> 158

```

Met Val Gly Arg Val Gln Pro Asp Arg Lys Gln Leu Pro Leu Val Leu
  1              5              10              15

Leu Arg Leu Leu Cys Leu Leu Pro Thr Gly Leu Pro Val Arg Ser Val
      20              25              30

Asp Phe Asn Arg Glv Thr Asp Asn Ile Thr Val Arg Gln Glv Asp Thr
      35              40              45

Ala Ile Leu Arg Cys Val Leu Glu Asp Lys Asn Ser Lys Val Ala Trp
      50              55              60

Leu Asn Arg Ser Gly Ile Ile Phe Ala Gly His Asp Lys Trp Ser Leu
      65              70              75              80

Asp Pro Arg Val Glu Leu Glu Lys Arg His Ser Leu Glu Tyr Ser Leu
      85              90              95

Arg Ile Gln Lys Val Asp Val Tyr Asp Glu Gly Ser Tyr Thr Cys Ser
      100             105             110

Val Gln Thr Gln His Glu Pro Lys Thr Ser Gln Val Tyr Leu Ile Val
      115             120             125

Gln Val Pro Pro Lys Ile Ser Asn Ile Ser Ser Asp Val Thr Val Asn
      130             135             140

Glu Gly Ser Asn Val Thr Leu Val Cys Met Ala Asn Gly Arg Pro Glu
      145             150             155             160

Pro Val Ile Thr Trp Arg His Leu Thr Pro Thr Gly Arg Glu Phe Glu
      165             170             175

Gly Glu Glu Glu Tyr Leu Glu Ile Leu Gly Ile Thr Arg Glu Gln Ser
      180             185             190

Gly Lys Tyr Glu Cys Lys Ala Ala Asn Glu Val Ser Ser Ala Asp Val
      195             200             205

Lys Gln Val Lys Val Thr Val Asn Tyr Pro Pro Thr Ile Thr Glu Ser
      210             215             220

Lys Ser Asn Glu Ala Thr Thr Gly Arg Gln Ala Ser Leu Lys Cys Glu
      225             230             235             240

Ala Ser Ala Val Pro Ala Pro Asp Phe Glu Trp Tyr Arg Asp Asp Thr
      245             250             255

Arg Ile Asn Ser Ala Asn Gly Leu Glu Ile Lys Ser Thr Glu Gly Gln
      260             265             270

Ser Ser Leu Thr Val Thr Asn Val Thr Glu Glu His Tyr Gly Asn Tyr
      275             280             285

```


Thr Cys Val Ala Ala Asn Lys Leu Gly Val Thr Asn Ala Ser Leu Val
290 295 300

Leu Phe Arg Pro Gly Ser Val Arg Gly Ile Asn Gly Ser Ile Ser Leu
305 310 315 320

Ala Val Pro Leu Trp Leu Leu Ala Ala Ser Leu Leu Cys Leu Leu Ser
325 330 335

Lvs Cvs

<210> 159

<211> 338

<212> PRT

<213> Gallus gallus

<400> 159

Met Val Ala Arg Ala Gln Pro Asp Arg Lys Gln Leu Pro Leu Val Leu
1 5 10 15

Leu Arg Leu Leu Cys Leu Leu Pro Thr Gly Leu Pro Val Arg Ser Val
20 25 30

Asp Phe Thr Arg Gly Thr Asp Asn Ile Thr Val Arg Gln Gly Asp Thr
35 40 45

Ala Ile Leu Arg Cys Phe Val Glu Asp Arg Ser Ser Lys Val Ala Trp
50 55 60

Leu Asn Arg Ser Gly Ile Ile Phe Ala Gly Glu Asp Lys Trp Ser Leu
65 70 75 80

Asp Pro Arg Val Glu Leu Glu Lys Arg Ser Pro Leu Glu Tyr Ser Leu
85 90 95

Arg Ile Gln Lys Val Asp Val Tyr Asp Glu Gly Ser Tyr Thr Cys Ser
100 105 110

Val Gln Thr Gln His His Pro Lys Thr Ser Gln Val Tyr Leu Ile Val
115 120 125

Gln Val Pro Pro Lys Ile Ser Asn Ile Ser Ser Asp Ile Thr Val Asn
130 135 140

Glu Gly Ser Asn Val Thr Leu Val Cys Met Ala Asn Gly Arg Pro Glu
145 150 155 160

Pro Val Ile Thr Trp Arg His Leu Thr Pro Thr Gly Lys Glu Phe Glu
165 170 175

Gly Glu Glu Glu Tyr Leu Glu Ile Leu Gly Ile Thr Arg Glu Gln Ser
180 185 190

Gly Lys Tyr Glu Cys Lys Ala Ala Asn Glu Val Ala Ser Ala Asp Val
195 200 205

20150304 10:40:11

Lys Ser Asn Glu Ala Ala Thr Gly Arg Gln Ala Leu Leu Arg Cys Glu
225 230 235 240

Ala Ser Ala Val Pro Thr Pro Asp Phe Glu Trp Tyr Arg Asp Asp Thr
245 250 255

Arg Ile Asn Ser Ala Asn Gly Leu Glu Ile Lys Ser Thr Gly Ser Gln
260 265 270

Ser Leu Leu Met Val Ala Asn Val Thr Glu Glu His Tyr Gly Asn Tyr
275 280 285

Thr Cys Val Ala Ala Asn Lys Leu Gly Val Thr Asn Ala Ser Leu Tyr
290 295 300

Leu Tyr Arg Pro Gly Thr Gly Arg Val Asp Asn Gly Ser Val Ser Leu
305 310 315 320

Ala Val Pro Leu Trp Leu Leu Ala Ala Ser Leu Leu Cys Leu Leu Ser
325 330 335

Lys Cys

```
<210> 160
<211> 45
<212> PRT
<213> Homo sapiens
```

<400> 160
Gly Glu Ser Val Thr Leu Thr Cys Ser Val Ser Gly Phe Gly Pro Pro
1 5 10 15

Pro Val Thr Trp Leu Arg Asn Gly Lys Leu Ser Leu Thr Ile Ser Val
20 25 30

Thr Pro Glu Asp Ser Gly Gly Thr Tyr Thr Cys Val Val
35 40 45

```
<210> 161
<211> 45
<212> PRT
<213> Homo sapiens
```

<400> 161
Gly Glu Ser Val Thr Leu Thr Cys Ser Val Ser Gly Phe Gly Pro Pro
1 5 10 15

Pro Val Thr Trp Leu Arg Asn Gly Lys Leu Ser Leu Thr Ile Ser Val
20 25 30

SECRET

```
<210> 162
<211> 45
<212> PRT
<213> Homo sapiens .
```

<400> 162
Gly Glu Ser Val Thr Leu Thr Cys Ser Val Ser Gly Phe Gly Pro Pro
1 5 10 15

Pro Val Thr Trp Leu Arg Asn Gly Lys Leu Ser Leu Thr Ile Ser Val
20 25 30

Thr Pro Glu Asp Ser Gly Gly Thr Tyr Thr Cys Val Val
35 40 45

```
<210> 163
<211> 577
<212> PRT
<213> Homo sapiens
```

```
<400> 163
Met Gly Ser Arg His Phe Glu Gly Ile Tyr Asp His Val Gly His Phe
  1             5             10             15
```

Gly Arg Phe Gln Arg Val Leu Tyr Phe Ile Cys Ala Phe Gln Asn Ile
20 25 30

Ser Cys Gly Ile His Tyr Leu Ala Ser Val Phe Met Gly Val Thr Pro
35 40 45

His His Val Cys Arg Pro Pro Gly Asn Val Ser Gln Val Val Phe His
50 55 60

Asn His Ser Asn Trp Ser Leu Glu Asp Thr Gly Ala Leu Leu Ser Ser
65 70 75 80

Gly Gln Lys Asp Tyr Val Thr Val Gln Leu Gln Asn Gly Glu Ile Trp
85 90 95

Glu Leu Ser Arg Cys Ser Arg Asn Lys Arg Glu Asn Thr Ser Ser Leu
100 105 110

Gly Tyr Glu Tyr Thr Gly Ser Lys Lys Glu Phe Pro Cys Val Asp Gly
115 120 125

Tyr Ile Tyr Asp Gln Asn Thr Trp Lys Ser Thr Ala Val Thr Gln Trp
130 135 140

Asn Leu Val Cys Asp Arg Lys Trp Leu Ala Met Leu Ile Gln Pro Leu
145 150 155 160

Phe Met Phe Gly Val Leu Leu Gly Ser Val Thr Phe Gly Tyr Phe Ser

165										170										175										
Asp	Arg	Leu	Gly	Arg	Arg	Val	Val	Leu	Trp	Ala	Thr	Ser	Ser	Ser	Met															
			180						185					190																
Phe	Leu	Phe	Gly	Ile	Ala	Ala	Ala	Phe	Ala	Val	Asp	Tyr	Tyr	Thr	Phe															
		195					200					205																		
Met	Ala	Ala	Arg	Phe	Phe	Leu	Ala	Met	Val	Ala	Ser	Gly	Tyr	Leu	Val															
	210					215					220																			
Val	Gly	Phe	Val	Tyr	Val	Met	Glu	Phe	Ile	Gly	Met	Lys	Ser	Arg	Thr															
225					230					235					240															
Trp	Ala	Ser	Val	His	Leu	His	Ser	Phe	Phe	Ala	Val	Gly	Thr	Leu	Leu															
				245					250					255																
Val	Ala	Leu	Thr	Gly	Tyr	Leu	Val	Arg	Thr	Trp	Trp	Leu	Tyr	Gln	Met															
			260					265					270																	
Ile	Leu	Ser	Thr	Val	Thr	Val	Pro	Phe	Ile	Leu	Cys	Cys	Trp	Val	Leu															
		275					280					285																		
Pro	Glu	Thr	Pro	Phe	Trp	Leu	Leu	Ser	Glu	Gly	Arg	Tyr	Glu	Glu	Ala															
	290					295					300																			
Gln	Lys	Ile	Val	Asp	Ile	Met	Ala	Lys	Trp	Asn	Arg	Ala	Ser	Ser	Cys															
305					310					315					320															
Lys	Leu	Ser	Glu	Leu	Leu	Ser	Leu	Asp	Leu	Gln	Gly	Pro	Val	Ser	Asn															
				325					330				335																	
Ser	Pro	Thr	Glu	Val	Gln	Lys	His	Asn	Leu	Ser	Tyr	Leu	Phe	Tyr	Asn															
			340					345					350																	
Trp	Ser	Ile	Thr	Lys	Arg	Thr	Leu	Thr	Val	Trp	Leu	Ile	Trp	Phe	Thr															
		355					360					365																		
Gly	Ser	Leu	Gly	Phe	Tyr	Ser	Phe	Ser	Leu	Asn	Ser	Val	Asn	Leu	Gly															
	370					375					380																			
Gly	Asn	Glu	Tyr	Leu	Asn	Leu	Phe	Leu	Leu	Gly	Val	Val	Glu	Ile	Pro															
385					390					395					400															
Ala	Tyr	Thr	Phe	Val	Cys	Ile	Ala	Thr	Asp	Lys	Val	Gly	Arg	Arg	Thr															
				405					410				415																	
Val	Leu	Ala	Tyr	Ser	Leu	Phe	Cys	Ser	Ala	Leu	Ala	Cys	Gly	Val	Val															
			420					425					430																	
Met	Val	Ile	Pro	Gln	Lys	His	Tyr	Ile	Leu	Gly	Val	Val	Thr	Ala	Met															
		435					440					445																		
Val	Gly	Lys	Phe	Ala	Ile	Gly	Ala	Ala	Phe	Gly	Leu	Ile	Tyr	Leu	Tyr															
	450					455					460																			
Thr	Ala	Glu	Leu	Tyr	Pro	Thr	Ile	Val	Arg	Ser	Leu	Ala	Val	Gly	Ser															

465 470 475 480
 Gly Ser Met Val Cys Arg Leu Ala Ser Ile Leu Ala Pro Phe Ser Val
 485 490 495
 Asp Leu Ser Ser Ile Trp Ile Phe Ile Pro Gln Leu Phe Val Gly Thr
 500 505 510
 Met Ala Leu Leu Ser Gly Val Leu Thr Leu Lys Leu Pro Glu Thr Leu
 515 520 525
 Gly Lys Arg Leu Ala Thr Thr Trp Glu Glu Ala Ala Lys Leu Glu Ser
 530 535 540
 Glu Asn Glu Ser Lys Ser Ser Lys Leu Leu Leu Thr Thr Asn Asn Ser
 545 550 555 560
 Gly Leu Glu Lys Thr Glu Ala Ile Thr Pro Arg Asp Ser Gly Leu Gly
 565 570 575
 Glu

<210> 164
 <211> 456
 <212> PRT
 <213> Homo sapiens

<400> 164
 Arg Phe Gln Arg Val Leu Tyr Phe Ile Cys Ala Phe Gln Asn Ile Ser
 1 5 10 15
 Cys Gly Ile His Tyr Leu Ala Ser Val Phe Met Gly Val Thr Pro His
 20 25 30
 His Val Cys Arg Pro Pro Gly Asn Val Ser Gln Val Val Phe His Asn
 35 40 45
 His Ser Asn Trp Ser Leu Glu Asp Thr Gly Ala Leu Leu Ser Ser Gly
 50 55 60
 Gln Lys Asp Tyr Val Thr Val Gln Leu Gln Asn Gly Glu Ile Trp Glu
 65 70 75 80
 Leu Ser Arg Cys Ser Arg Asn Lys Arg Glu Asn Thr Ser Ser Leu Gly
 85 90 95
 Tyr Glu Tyr Thr Gly Ser Lys Lys Glu Phe Pro Cys Val Asp Gly Tyr
 100 105 110
 Ile Tyr Asp Gln Asn Thr Trp Lys Ser Thr Ala Val Thr Gln Trp Asn
 115 120 125
 Leu Val Cys Asp Arg Lys Trp Leu Ala Met Leu Ile Gln Pro Leu Phe
 130 135 140

Met Phe Gly Val Leu Leu Gly Ser Val Thr Phe Gly Tyr Phe Ser Asp
145 150 155 160

Arg Leu Gly Arg Arg Val Val Leu Trp Ala Thr Ser Ser Ser Met Phe
165 170 175

Leu Phe Gly Ile Ala Ala Ala Phe Ala Val Asp Tyr Tyr Thr Phe Met
180 185 190

Ala Ala Arg Phe Phe Leu Ala Met Val Ala Ser Glv Trp Leu Val Val
195 200 205

Gly Phe Val Tyr Val Met Glu Phe Ile Gly Met Lys Ser Arg Thr Trp
210 215 220

Ala Ser Val His Leu His Ser Phe Phe Ala Val Gly Thr Leu Leu Val
225 230 235 240

Ala Leu Thr Gly Tyr Leu Val Arg Thr Trp Trp Leu Tyr Gln Met Ile
245 250 255

Leu Ser Thr Val Thr Val Pro Phe Ile Leu Cys Cys Trp Val Leu Pro
260 265 270

Glu Thr Pro Phe Trp Leu Leu Ser Glu Gly Arg Tyr Glu Glu Ala Gln
275 280 285

Lys Ile Val Asp Ile Met Ala Lys Trp Asn Arg Ala Ser Ser Cys Lys
290 295 300

Leu Ser Glu Leu Leu Ser Leu Asp Leu Gln Gly Pro Val Ser Asn Ser
305 310 315 320

Pro Thr Glu Val Gln Lys His Asn Leu Ser Tyr Leu Phe Tyr Asn Trp
325 330 335

Ser Ile Thr Lys Arg Thr Leu Thr Val Trp Leu Ile Trp Phe Thr Gly
340 345 350

Ser Leu Gly Phe Tyr Ser Phe Ser Leu Asn Ser Val Asn Leu Gly Gly
355 360 365

Asn Glu Tyr Leu Asn Leu Phe Leu Leu Gly Val Val Glu Ile Pro Ala
370 375 380

Tyr Thr Phe Val Cys Ile Ala Met Asp Lys Val Gly Arg Arg Thr Val
385 390 395 400

Leu Ala Tyr Ser Leu Phe Cys Ser Ala Leu Ala Cys Gly Val Val Met
405 410 415

Val Ile Pro Gln Lys His Tyr Ile Leu Gly Val Val Thr Ala Met Val
420 425 430

Gly Lys Phe Ala Ile Gly Ala Ala Phe Gly Leu Ile Tyr Leu Tyr Thr
435 440 445

Ala Glu Leu Tyr Pro Thr Ile Val
450 455

<210> 165
<211> 361
<212> PRT
<213> Homo sapiens

<400> 165
Met Leu Ile Gln Pro Leu Phe Met Phe Gly Val Leu Leu Gly Ser Val
1 5 10 15
Thr Phe Gly Tyr Phe Ser Asp Arg Leu Gly Arg Arg Val Val Leu Trp
20 25 30
Ala Thr Ser Ser Ser Met Phe Leu Phe Gly Ile Ala Ala Ala Phe Ala
35 40 45
Val Asp Tyr Tyr Thr Phe Met Ala Ala Arg Phe Phe Leu Ala Met Val
50 55 60
Ala Ser Gly Tyr Leu Val Val Gly Phe Val Tyr Val Met Glu Phe Ile
65 70 75 80
Gly Met Lys Ser Arg Thr Trp Ala Ser Val His Leu His Ser Phe Phe
85 90 95
Ala Val Gly Thr Leu Leu Val Ala Leu Thr Gly Tyr Leu Val Arg Thr
100 105 110
Trp Trp Leu Tyr Gln Met Ile Leu Ser Thr Val Thr Val Pro Phe Ile
115 120 125
Leu Cys Cys Trp Val Leu Pro Glu Thr Pro Phe Trp Leu Leu Ser Glu
130 135 140
Gly Arg Tyr Glu Glu Ala Gln Lys Ile Val Asp Ile Met Ala Lys Trp
145 150 155 160
Asn Arg Ala Ser Ser Cys Lys Leu Ser Glu Leu Leu Ser Leu Asp Leu
165 170 175
Gln Gly Pro Val Ser Asn Ser Pro Thr Glu Val Gln Lys His Asn Leu
180 185 190
Ser Tyr Leu Phe Tyr Asn Trp Ser Ile Thr Lys Arg Thr Leu Thr Val
195 200 205
Trp Leu Ile Trp Phe Thr Gly Ser Leu Gly Phe Tyr Ser Phe Ser Leu
210 215 220
Asn Ser Val Asn Leu Gly Gly Asn Glu Tyr Leu Asn Leu Phe Leu Leu
225 230 235 240
Gly Val Val Glu Ile Pro Ala Tyr Thr Phe Val Cys Ile Ala Thr Asp
245 250 255

Lys Val Gly Arg Arg Thr Val Leu Ala Tyr Ser Leu Phe Cys Ser Ala
260 265 270

Leu Ala Cys Gly Val Val Met Val Ile Pro Gln Lys His Tyr Ile Leu
275 280 285

Gly Val Val Thr Ala Met Val Gly Lys Phe Ala Ile Gly Ala Ala Phe
290 295 300

Gly Leu Ile Tyr Leu Tyr Thr Ala Glu Leu Tyr Pro Thr Ile Val Arg
305 310 315 320

Ser Leu Ala Val Gly Ser Gly Ser Met Val Cys Arg Leu Ala Ser Ile
325 330 335

Leu Ala Pro Phe Ser Val Asp Leu Ser Ser Ile Trp Ile Phe Ile Pro
340 345 350

Gln Leu Leu Gly Gln His Leu Gln Glu
355 360

<210> 166

<211> 305

<212> PRT

<213> Homo sapiens

<400> 166

Ile Leu Ser Thr Val Thr Val Pro Phe Ile Leu Cys Cys Trp Val Leu
1 5 10 15

Pro Glu Thr Pro Phe Trp Leu Leu Ser Glu Gly Arg Tyr Glu Glu Ala
20 25 30

Gln Lys Ile Val Asp Ile Met Ala Lys Trp Asn Arg Ala Ser Ser Cys
35 40 45

Lys Leu Ser Glu Leu Leu Ser Leu Asp Leu Gln Gly Pro Val Ser Asn
50 55 60

Ser Pro Thr Glu Val Gln Lys His Asn Leu Ser Tyr Leu Phe Tyr Asn
65 70 75 80

Trp Ser Ile Thr Lys Arg Thr Leu Thr Val Trp Leu Ile Trp Phe Thr
85 90 95

Gly Ser Leu Gly Phe Tyr Ser Phe Ser Leu Asn Ser Val Asn Leu Gly
100 105 110

Gly Asn Glu Tyr Leu Asn Leu Phe Leu Leu Gly Val Val Glu Ile Pro
115 120 125

Ala Tyr Thr Phe Val Cys Ile Ala Met Asp Lys Val Gly Arg Arg Thr
130 135 140

Val Leu Ala Tyr Ser Leu Phe Cys Ser Ala Leu Ala Cys Gly Val Val

145 150 155 160
 Met Val Ile Pro Gln Lys His Tyr Ile Leu Gly Val Val Thr Ala Met
 165 170 175
 Val Gly Lys Phe Ala Ile Gly Ala Ala Phe Gly Leu Ile Tyr Leu Tyr
 180 185 190
 Thr Ala Glu Leu Tyr Pro Thr Ile Val Arg Ser Leu Ala Val Gly Ser
 195 200 205
 Gly Ser Met Val Cys Arg Leu Ala Ser Ile Leu Ala Pro Phe Ser Val
 210 215 220
 Asp Leu Ser Ser Ile Trp Ile Phe Ile Pro Gln Leu Phe Val Gly Thr
 225 230 235 240
 Met Ala Leu Leu Ser Gly Val Leu Thr Leu Lys Leu Pro Glu Thr Leu
 245 250 255
 Gly Lys Arg Leu Ala Thr Thr Trp Glu Glu Ala Ala Lys Leu Glu Ser
 260 265 270
 Glu Asn Glu Ser Lys Ser Ser Lys Leu Leu Leu Thr Thr Asn Asn Ser
 275 280 285
 Gly Leu Glu Lys Thr Glu Ala Ile Thr Pro Arg Asp Ser Gly Leu Gly
 290 295 300
 Glu
 305

<210> 167
 <211> 419
 <212> PRT
 <213> Mus musculus

<400> 167

Met Glu Met Thr Gly Lys Lys Ala Arg Thr Trp Ala Ser Ile His Leu
 1 5 10 15
 Asn Thr Phe Phe Ala Ile Gly Ala Met Leu Val Ala Leu Ala Ser Tyr
 20 25 30
 Leu Leu Lys Thr Trp Trp Leu Tyr Gln Ile Ile Leu Cys Ile Val Thr
 35 40 45
 Thr Pro Phe Ile Leu Cys Cys Trp Met Leu Pro Glu Thr Pro Phe Trp
 50 55 60
 Leu Leu Ser Glu Gly Arg Tyr Lys Glu Ala Gln Gly Thr Val Asp Thr
 65 70 75 80
 Met Ala Val Trp Asn Lys Ser Ser Ser Cys Asp Leu Val Glu Leu Leu
 85 90 95

Ser Leu Asp Val Thr Arg Ser His Asn Lys Ser Pro His Ser Ile Arg
 100 105 110
 Lys His Arg Leu Ala Asp Leu Phe His Asn Leu Asp Val Ala Lys Met
 115 120 125
 Thr Leu Ile Val Trp Leu Asp Trp Phe Thr Ala Asn Leu Gly Tyr Tyr
 130 135 140
 Met Phe Glv Lys Glu Val Ile Arg Arg Lys Glu Asn Glu Pro Leu Tyr
 145 150 155 160
 Leu Leu Leu Val Gly Ala Met Glu Ile Pro Ala Tyr Ile Cys Leu Cys
 165 170 175
 Ile Trp Leu Lys Arg Val Gly Arg Arg Lys Thr Met Leu Leu Phe Leu
 180 185 190
 Leu Val Ser Ser Leu Thr Cys Met Leu His Val Val Met Pro Ser Asp
 195 200 205
 Tyr Lys Thr Ala Lys Arg Met Val Ala Leu Leu Val Lys Ser Val Ile
 210 215 220
 Ser Ser Val Phe Ala Phe Ile Tyr Leu Tyr Thr Ala Glu Leu Tyr Pro
 225 230 235 240
 Thr Thr Val Arg Cys Leu Ala Val Gly Ser Ser Asn Met Val Ser His
 245 250 255
 Val Ser Ser Ile Phe Ile Pro Phe Thr Ser His Phe Ser Lys Val Trp
 260 265 270
 Ile Phe Leu Pro Gln Ile Leu Phe Gly Ile Leu Ala Ile Leu Ser Gly
 275 280 285
 Leu Leu Ser Leu Lys Leu Pro Glu Thr Gln Asp Thr Pro Met Lys Ser
 290 295 300
 Thr Trp Glu Thr Thr Glu Gln Gln Val Pro Glu Asn Lys Asp Ser Leu
 305 310 315 320
 Gly Glu Gly Pro Pro Asp Ser Phe Glu Arg Trp Asp Ser Ser Arg Ala
 325 330 335
 Leu Ser Phe Ala Glu Arg Trp Gly Leu Ser Arg Ala Ser Pro Asp Ala
 340 345 350
 Glu Lys Trp Gly Ser Gly Arg Val Pro Pro Asp Ala Gly Lys Trp Gly
 355 360 365
 Ala Gly Ile Ala Pro Pro Val Thr Glu Arg Gly Ala Ser Gly Arg Ala
 370 375 380
 Ser Leu Glu Asp Glu Ser Gly Gly Ser Gly Arg Ala Pro Pro Glu Lys
 385 390 395 400

Asn Thr Glu Met Glu Asn Glu Ile Glu Asn Met Lys Val Ser Asn Leu
405 410 415

Gly Gly Phe

```
<210> 168
<211> 267
<212> PRT
<213> Homo sapiens
```

<400> 168																	
Gln	Tyr	Glu	Phe	Met	Gln	Arg	Ala	Leu	Leu	Ala	Ser	Ile	Leu	Val	Gly		
1				5					10					15			
Leu	Ala	Cys	Gly	Ile	Leu	Gly	Ser	Phe	Leu	Val	Leu	Arg	Arg	Gln	Ser		
			20					25					30				
Leu	Met	Gly	Asp	Ala	Ile	Ser	His	Ala	Val	Leu	Pro	Gly	Val	Ala	Leu		
		35					40					45					
Ala	Phe	Phe	Leu	Gly	Ile	Asn	Lys	Ser	Leu	Glu	Ile	Pro	Leu	Ile	Gly		
	50					55					60						
Ala	Phe	Leu	Phe	Gly	Leu	Ile	Ala	Ala	Val	Ala	Ile	Gly	Tyr	Leu	Lys		
	65				70					75					80		
Arg	Asn	Ser	Arg	Leu	Lys	Glu	Asp	Thr	Ala	Ile	Gly	Ile	Val	Phe	Ser		
				85					90					95			
Ser	Phe	Leu	Ala	Leu	Gly	Leu	Leu	Leu	Ile	Ser	Leu	Ile	Lys	Gly	Ser		
			100					105					110				
Asn	Ala	Ala	Ser	Lys	Val	Asp	Leu	Asp	His	Tyr	Leu	Phe	Gly	Asn	Ile		
		115					120					125					
Leu	Gly	Ile	Ser	Gln	Gln	Asp	Leu	Ile	Gln	Ile	Ala	Ile	Ile	Thr	Ala		
	130					135					140						
Ile	Ile	Leu	Leu	Leu	Leu	Leu	Leu	Phe	Trp	Lys	Glu	Leu	Leu	Leu	Ile		
145					150					155					160		
Thr	Phe	Asp	Pro	Asp	Leu	Ala	Lys	Val	Ile	Gly	Leu	Pro	Val	Asn	Phe		
				165					170					175			
Leu	Lys	Leu	Leu	Leu	Leu	Ile	Leu	Leu	Ala	Leu	Thr	Ile	Val	Val	Ala		
			180					185					190				
Leu	Gln	Ala	Val	Gly	Val	Ile	Leu	Val	Ile	Ala	Leu	Leu	Ile	Thr	Pro		
		195					200					205					
Ala	Ala	Thr	Ala	Arg	Leu	Leu	Thr	Lys	Ser	Leu	Glu	Ser	Met	Leu	Leu		
	210					215					220						
Ile	Ala	Ser	Ala	Ile	Gly	Val	Val	Ser	Ser	Val	Ala	Gly	Leu	Leu	Leu		
225					230					235					240		

106894 - **106917**

Thr Leu Leu Phe Leu Ile Ser Phe Leu Phe Ala
260 265

```
<210> 169
<211> 119
<212> PRT
<213> Homo sapiens
```

```
<400> 169
Leu Leu Ile Leu Leu Leu Val Leu Leu Ala Pro Leu Ala Glu Glu Leu
   1                               5                10              15
Phe Phe Arg Gly Ile Leu Leu Thr Ala Leu Glu Arg Arg Leu Lys Lys
      20                      25                  30
Arg Tyr Thr Leu Phe Gly Pro Leu Leu Ala Ile Ile Ile Ser Ser Leu
     35                          40                        45
Ile Phe Ala Leu Leu His Leu Ala Asn Ala Leu Glu Leu Leu Gln Leu
    50                            55                    60
Leu Gly Asn Val Leu Ile Gln Pro Val Leu Ile Asn Trp Leu Gln Leu
   65                         70                 75             80
Leu Tyr Thr Phe Leu Leu Gly Leu Val Leu Gly Leu Leu Tyr Leu Arg
      85                                90
Arg Thr Gly Ser Leu Leu Ala Pro Ile Leu Val His Ala Leu Asn Asn
    100                     105               110
Leu Ile Gly Phe Ile Leu Leu
    115
```

```
<210> 170
<211> 488
<212> PRT
<213> Homo sapiens
```

```

<400> 170
Val Ala Leu Val Ala Ala Leu Gly Gly Gly Phe Leu Phe Gly Tyr Asp
  1                      5                      10                      15

Thr Gly Val Ile Gly Gly Phe Leu Ala Leu Ile Asp Phe Leu Phe Arg
      20                      25                      30

Phe Gly Leu Leu Thr Ser Ser Gly Ala Leu Ala Glu Leu Val Gly Tyr
      35                      40                      45

Ser Thr Val Leu Thr Gly Leu Val Val Ser Ile Phe Phe Leu Gly Arg
      50                      55                      60

```

ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED

Leu Ile Gly Ser Leu Phe Ala Gly Lys Leu Gly Asp Arg Phe Gly Arg
65 70 75 80

Lys Lys Ser Leu Leu Ile Ala Leu Val Leu Phe Val Ile Gly Ala Leu
85 90 95

Leu Ser Gly Ala Ala Pro Gly Tyr Thr Thr Ile Gly Leu Trp Ala Phe
100 105 110

Tyr Leu Leu Ile Val Gly Arg Val Leu Val Gly Leu Gly Val Gly Gly
115 120 125

Ala Ser Val Leu Val Pro Met Tyr Ile Ser Glu Ile Ala Pro Lys Ala
130 135 140

Leu Arg Gly Ala Leu Gly Ser Leu Tyr Gln Leu Ala Ile Thr Ile Gly
145 150 155 160

Ile Leu Val Ala Ala Ile Ile Gly Leu Gly Leu Asn Lys Thr Asn Asn
165 170 175

Asp Ser Ala Leu Asn Ser Trp Gly Trp Arg Ile Pro Leu Gly Leu Gln
180 185 190

Leu Val Pro Ala Leu Leu Leu Leu Ile Gly Leu Leu Phe Leu Pro Glu
195 200 205

Ser Pro Arg Trp Leu Val Glu Lys Gly Lys Leu Glu Glu Ala Arg Glu
210 215 220

Val Leu Ala Lys Leu Arg Gly Val Glu Asp Val Asp Gln Glu Ile Gln
225 230 235 240

Glu Ile Lys Ala Glu Leu Glu Ala Thr Val Ser Glu Glu Lys Ala Gly
245 250 255

Lys Ala Ser Trp Gly Glu Leu Phe Arg Gly Arg Thr Arg Pro Lys Val
260 265 270

Arg Gln Arg Leu Leu Met Gly Val Met Leu Gln Ala Phe Gln Gln Leu
275 280 285

Thr Gly Ile Asn Ala Ile Phe Tyr Tyr Ser Pro Thr Ile Phe Lys Ser
290 295 300

Val Gly Val Ser Asp Ser Val Ala Ser Leu Leu Val Thr Ile Ile Val
305 310 315 320

Gly Val Val Asn Phe Val Phe Thr Phe Val Ala Leu Ile Phe Leu Val
325 330 335

Asp Arg Phe Gly Arg Arg Pro Leu Leu Leu Gly Ala Ala Gly Met
340 345 350

Ala Ile Cys Phe Leu Ile Leu Gly Ala Ser Ile Gly Val Ala Leu Leu
355 360 365

Leu Leu Asn Lys Pro Lys Asp Pro Ser Ser Lys Ala Ala Gly Ile Val
370 375 380

Ala Ile Val Phe Ile Leu Leu Phe Ile Ala Phe Phe Ala Leu Gly Trp
385 390 395 400

Gly Pro Ile Pro Trp Val Ile Leu Ser Glu Leu Phe Pro Thr Lys Val
405 410 415

Arg Ser Lys Ala Leu Ala Leu Ala Thr Ala Ala Asn Trp Leu Ala Asn
420 425 430

Phe Ile Ile Gly Phe Leu Phe Pro Tyr Ile Thr Gly Ala Ile Gly Leu
435 440 445

Ala Leu Gly Gly Tyr Val Phe Leu Val Phe Ala Gly Leu Leu Val Leu
450 455 460

Phe Ile Leu Phe Val Phe Phe Phe Val Pro Glu Thr Lys Gly Arg Thr
465 470 475 480

Leu Glu Glu Ile Glu Glu Leu Phe
485

<210> 171
<211> 343
<212> PRT
<213> Homo sapiens

<400> 171
Met Leu Ala Thr Arg Leu Ser Arg Pro Leu Ser Arg Leu Pro Gly Lys
1 5 10 15

Thr Leu Ser Ala Cys Asp Arg Glu Asn Gly Ala Arg Arg Pro Leu Leu
20 25 30

Leu Gly Ser Thr Ser Phe Ile Pro Ile Gly Arg Arg Thr Tyr Ala Ser
35 40 45

Ala Ala Glu Pro Val Gly Ser Lys Ala Val Leu Val Thr Gly Cys Asp
50 55 60

Ser Gly Phe Gly Phe Ser Leu Ala Lys His Leu His Ser Lys Gly Phe
65 70 75 80

Leu Val Phe Ala Gly Cys Leu Met Lys Asp Lys Gly His Asp Gly Val
85 90 95

Lys Glu Leu Asp Ser Leu Asn Ser Asp Arg Leu Arg Thr Val Gln Leu
100 105 110

Asn Val Cys Ser Ser Glu Glu Val Glu Lys Val Val Glu Ile Val Arg
115 120 125

Ser Ser Leu Lys Asp Pro Glu Lys Gly Met Trp Gly Leu Val Asn Asn
130 135 140

Ala Gly Ile Ser Thr Phe Gly Glu Val Glu Phe Thr Ser Leu Glu Thr
 145 150 155 160

Tyr Lys Gln Val Ala Glu Val Asn Leu Trp Gly Thr Val Arg Met Thr
 165 170 175

Lys Ser Phe Leu Pro Leu Ile Arg Arg Ala Lys Gly Arg Val Val Asn
 180 185 190

Ile Ser Ser Met Leu Gly Arg Met Ala Asn Pro Ala Arg Ser Pro Tyr
 195 200 205

Cys Ile Thr Lys Phe Gly Val Glu Ala Phe Ser Asp Cys Leu Arg Tyr
 210 215 220

Glu Met Tyr Pro Leu Gly Val Lys Val Ser Val Val Glu Pro Gly Asn
 225 230 235 240

Phe Ile Ala Ala Thr Ser Leu Tyr Ser Pro Glu Ser Ile Gln Ala Ile
 245 250 255

Ala Lys Lys Met Trp Glu Glu Leu Pro Glu Val Val Arg Lys Asp Tyr
 260 265 270

Gly Lys Lys Tyr Phe Asp Glu Lys Ile Ala Lys Met Glu Thr Tyr Cys
 275 280 285

Ser Ser Gly Ser Thr Asp Thr Ser Pro Val Ile Asp Ala Val Thr His
 290 295 300

Ala Leu Thr Ala Thr Thr Pro Tyr Thr Arg Tyr His Pro Met Asp Tyr
 305 310 315 320

Tyr Trp Trp Leu Arg Met Gln Ile Met Thr His Leu Pro Gly Ala Ile
 325 330 335

Ser Asp Met Ile Tyr Ile Arg
 340

<210> 172
 <211> 343
 <212> PRT
 <213> Homo sapiens

<400> 172
 Met Leu Ala Thr Arg Leu Ser Arg Pro Leu Ser Arg Leu Pro Gly Lys
 1 5 10 15

Thr Leu Ser Ala Cys Asp Arg Glu Asn Gly Ala Arg Arg Pro Leu Leu
 20 25 30

Leu Gly Ser Thr Ser Phe Ile Pro Ile Gly Arg Arg Thr Tyr Ala Ser
 35 40 45

Ala Ala Glu Pro Val Gly Ser Lys Ala Val Leu Val Thr Gly Cys Asp

<210> 173
 <211> 344
 <212> PRT
 <213> Homo sapiens

<400> 173
 Met Leu Ala Thr Arg Thr Leu Ser Arg Pro Leu Ser Arg Leu Pro Gly
 1 5 10 15
 Lys Thr Leu Ser Ala Cys Asp Arg Glu Asn Gly Ala Arg Arg Pro Leu
 20 25 30
 Leu Leu Gly Ser Thr Ser Phe Ile Pro Ile Gly Arg Arg Thr Tyr Ala
 35 40 45
 Ser Ala Ala Glu Pro Val Gly Ser Lys Ala Val Leu Val Thr Gly Cys
 50 55 60
 Asp Ser Gly Phe Gly Phe Ser Leu Ala Lys His Leu His Ser Lys Gly
 65 70 75 80
 Phe Leu Val Phe Ala Gly Cys Leu Met Lys Asp Lys Gly His Asp Gly
 85 90 95
 Val Lys Glu Leu Asp Ser Leu Asn Ser Asp Arg Leu Arg Thr Val Gln
 100 105 110
 Leu Asn Val Phe Arg Ser Glu Glu Val Glu Lys Val Val Gly Asp Cys
 115 120 125
 Pro Phe Glu Pro Glu Gly Pro Glu Lys Gly Met Trp Gly Leu Val Asn
 130 135 140
 Asn Ala Gly Ile Ser Thr Phe Gly Glu Val Glu Phe Thr Ser Leu Glu
 145 150 155 160
 Thr Tyr Lys Gln Val Ala Glu Val Asn Leu Trp Gly Thr Val Arg Met
 165 170 175
 Thr Lys Ser Phe Leu Pro Leu Ile Arg Arg Ala Lys Gly Arg Val Val
 180 185 190
 Asn Ile Ser Ser Met Leu Gly Arg Met Ala Asn Pro Ala Arg Ser Pro
 195 200 205
 Tyr Cys Ile Thr Lys Phe Gly Val Glu Ala Phe Ser Asp Cys Leu Arg
 210 215 220
 Tyr Glu Met Tyr Pro Leu Gly Val Lys Val Ser Val Val Glu Pro Gly
 225 230 235 240
 Asn Phe Ile Ala Ala Thr Ser Leu Tyr Asn Pro Glu Ser Ile Gln Ala
 245 250 255
 Ile Ala Lys Lys Met Trp Glu Glu Leu Pro Glu Val Val Arg Lys Asp
 260 265 270

Tyr Gly Lys Lys Tyr Phe Asp Glu Lys Ile Ala Lys Met Glu Thr Tyr
275 280 285

Cys Ser Ser Gly Ser Thr Asp Thr Ser Pro Val Ile Asp Ala Val Thr
290 295 300

His Ala Leu Thr Ala Thr Thr Pro Tyr Thr Arg Tyr His Pro Met Asp
305 310 315 320

Tyr Tyr Trp Trp Leu Arg Met Gln Ile Met Thr His Leu Pro Gly Ala
325 330 335

Ile Ser Asp Met Ile Tyr Ile Arg
340

<210> 174

<211> 343

<212> PRT

<213> Homo sapiens

<400> 174

Gly Leu Arg Pro Pro Pro Pro Gly Arg Phe Ser Arg Leu Pro Gly Lys
1 5 10 15

Thr Leu Ser Ala Cys Asp Arg Glu Asn Gly Ala Arg Arg Pro Leu Leu
20 25 30

Leu Gly Ser Thr Ser Phe Ile Pro Ile Gly Arg Arg Thr Tyr Ala Ser
35 40 45

Ala Ala Glu Pro Val Gly Ser Lys Ala Val Leu Val Thr Gly Cys Asp
50 55 60

Ser Gly Phe Gly Phe Ser Leu Ala Lys His Leu His Ser Lys Gly Phe
65 70 75 80

Leu Val Phe Ala Gly Cys Leu Met Lys Asp Lys Gly His Asp Gly Val
85 90 95

Lys Glu Leu Asp Ser Leu Asn Ser Asp Arg Leu Arg Thr Val Gln Leu
100 105 110

Asn Val Phe Arg Ser Glu Glu Val Glu Lys Val Val Gly Asp Cys Pro
115 120 125

Phe Glu Pro Glu Gly Pro Glu Lys Gly Met Trp Gly Leu Val Asn Asn
130 135 140

Ala Gly Ile Ser Thr Phe Gly Glu Val Glu Phe Thr Ser Leu Glu Thr
145 150 155 160

Tyr Lys Gln Val Ala Glu Val Asn Leu Trp Gly Thr Val Arg Met Thr
165 170 175

Lys Ser Phe Leu Pro Leu Ile Arg Arg Ala Lys Gly Arg Val Val Asn
180 185 190

Ile Ser Ser Met Leu Gly Arg Met Ala Asn Pro Ala Arg Ser Pro Tyr
 195 200 205

Cys Ile Thr Lys Phe Gly Val Glu Ala Phe Ser Asp Cys Leu Arg Tyr
 210 215 220

Glu Met Tyr Pro Leu Gly Val Lys Val Ser Val Val Glu Pro Gly Asn
 225 230 235 240

Phe Ile Ala Ala Thr Ser Leu Tyr Asn Pro Glu Ser Ile Gln Ala Ile
 245 250 255

Ala Lys Lys Met Trp Glu Glu Leu Pro Glu Val Val Arg Lys Asp Tyr
 260 265 270

Gly Lys Lys Tyr Phe Asp Glu Lys Ile Ala Lys Met Glu Thr Tyr Cys
 275 280 285

Ser Ser Gly Ser Thr Asp Thr Ser Pro Val Ile Asp Ala Val Thr His
 290 295 300

Ala Leu Thr Ala Thr Thr Pro Tyr Thr Arg Tyr His Pro Met Asp Tyr
 305 310 315 320

Tyr Trp Trp Leu Arg Met Gln Ile Met Thr His Leu Pro Gly Ala Ile
 325 330 335

Ser Asp Met Ile Tyr Ile Arg
 340

<210> 175
 <211> 344
 <212> PRT
 <213> Rattus norvegicus

<400> 175
 Met Met Leu Ala Ala Arg Leu Ser Arg Pro Leu Ser Gln Leu Pro Gly
 1 5 10 15

Lys Ala Leu Ser Val Cys Asp Arg Glu Asn Gly Thr Arg His Thr Leu
 20 25 30

Leu Phe Tyr Pro Ala Ser Phe Ser Pro Asp Thr Arg Arg Thr Tyr Thr
 35 40 45

Ser Gln Ala Asp Ala Ala Ser Gly Lys Ala Val Leu Val Thr Gly Cys
 50 55 60

Asp Ser Gly Phe Gly Phe Ser Leu Ala Lys His Leu His Ser Lys Gly
 65 70 75 80

Phe Leu Val Phe Ala Gly Cys Leu Leu Lys Glu Gln Gly Asp Ala Gly
 85 90 95

Val Arg Glu Leu Asp Ser Leu Lys Ser Asp Arg Leu Arg Thr Ile Gln

Leu Asn Val Cys Asn Ser Glu Glu Val Glu Lys Ala Val Glu Thr Val
 115 120 125
 Arg Ser Gly Leu Lys Asp Pro Glu Lys Gly Met Trp Gly Leu Val Asn
 130 135 140
 Asn Ala Gly Ile Ser Thr Phe Gly Glu Val Glu Phe Thr Ser Met Glu
 145 150 155 160
 Thr Tyr Lys Glu Val Ala Glu Val Asn Leu Trp Gly Thr Val Arg Thr
 165 170 175
 Thr Lys Ser Phe Leu Pro Leu Leu Arg Arg Ala Lys Gly Arg Val Val
 180 185 190
 Asn Ile Ser Ser Met Leu Gly Arg Met Ala Asn Pro Ala Arg Ser Pro
 195 200 205
 Tyr Cys Ile Thr Lys Phe Gly Val Glu Ala Phe Ser Asp Cys Leu Arg
 210 215 220
 Tyr Glu Met His Pro Leu Gly Val Lys Val Ser Val Val Glu Pro Gly
 225 230 235 240
 Asn Phe Ile Ala Ala Thr Ser Leu Tyr Ser Pro Glu Arg Ile Gln Ala
 245 250 255
 Ile Ala Lys Lys Met Trp Asp Glu Leu Pro Glu Val Val Arg Lys Asp
 260 265 270
 Tyr Gly Lys Lys Tyr Phe Asp Glu Lys Ile Ala Lys Met Glu Thr Tyr
 275 280 285
 Cys Asn Ser Gly Ser Thr Asp Thr Ser Ser Val Ile Asn Ala Val Thr
 290 295 300
 His Ala Leu Thr Ala Ala Thr Pro Tyr Thr Arg Tyr His Pro Met Asp
 305 310 315 320
 Tyr Tyr Trp Trp Leu Arg Met Gln Val Met Thr His Phe Pro Gly Ala
 325 330 335
 Ile Ser Asp Lys Ile Tyr Ile His
 340

<210> 176

<211> 271

<212> PRT

<213> Homo sapiens

<400> 176

Thr Gly Lys Val Ala Leu Val Thr Gly Ala Ser Ser Gly Ile Gly Leu
 1 5 10 15

Ala Ile Ala Lys Arg Leu Ala Lys Glu Gly Ala Lys Val Val Val Val
20 25 30

Asp Arg Arg Glu Glu Lys Ala Glu Gln Val Ala Ala Glu Leu Lys Ala
35 40 45

Glu Leu Gly Asp Arg Ala Leu Phe Ile Gln Leu Asp Val Thr Asp Glu
50 55 60

Glu Gln Val Lys Ala Ala Val Ala Gln Ala Val Glu Arg Leu Gly Asp
65 70 75 80

Arg Leu Asp Val Leu Val Asn Asn Ala Gly Ile Leu Gly Pro Gly Pro
85 90 95

Pro Phe Glu Glu Leu Ser Glu Glu Asp Trp Glu Arg Val Ile Asp Val
100 105 110

Asn Leu Thr Gly Val Phe Leu Leu Thr Gln Ala Val Leu Pro Ala Met
115 120 125

Asp His Met Leu Lys Arg Lys Gly Gly Arg Ile Val Asn Ile Ser Ser
130 135 140

Val Ala Gly Leu Asn Val Gly Val Pro Gly Leu Ser Ala Tyr Ser Ala
145 150 155 160

Ser Lys Ala Ala Val Ile Gly Leu Thr Arg Ser Leu Ala Leu Glu Leu
165 170 175

Ala Pro His Gly Thr Gly Ile Arg Val Asn Ala Val Ala Pro Gly Gly
180 185 190

Val Asp Thr Asp Met Thr Lys Ala Leu Arg Ser Arg Leu Ile Glu Ala
195 200 205

Lys Lys Lys Val Arg Glu Val Ala Asp Ile Ala Asp Pro Glu Leu Glu
210 215 220

Glu Arg Ile Thr Ser Thr Ile Thr Pro Leu Gly Arg Tyr Gly Val Thr
225 230 235 240

Pro Glu Glu Ile Ala Asn Ala Val Leu Phe Leu Ala Ser Asp Gly Ala
245 250 255

Ser Tyr Ser Val Thr Gly Gln Thr Leu Asn Val Asp Gly Gly Leu
260 265 270

<210> 177

<211> 256

<212> PRT

<213> Homo sapiens

<400> 177

Tyr Asp Val Trp Met Gly Asn Ser Arg Gly Asn Thr Trp Ser Arg Arg
1 5 10 15

His Lys Thr Leu Ser Glu Thr Asp Glu Lys Phe Trp Ala Phe Gly Phe
20 25 30

Asp Glu Met Ala Lys Tyr Asp Leu Pro Gly Val Ile Asp Phe Ile Val
35 40 45

Asn Lys Thr Gly Gln Glu Lys Leu Tyr Phe Ile Gly His Ser Leu Gly
50 55 60

Thr Thr Ile Gly Phe Val Ala Phe Ser Thr Met Pro Glu Leu Ala Gln
65 70 75 80

Arg Ile Lys Met Asn Phe Ala Leu Gly Pro Thr Ile Ser Phe Lys Tyr
85 90 95

Pro Thr Gly Ile Phe Thr Arg Phe Phe Leu Leu Pro Asn Ser Ile Ile
100 105 110

Lys Ala Val Phe Gly Thr Lys Gly Phe Phe Leu Glu Asp Lys Lys Thr
115 120 125

Lys Ile Ala Ser Thr Lys Ile Cys Asn Asn Lys Ile Leu Trp Leu Ile
130 135 140

Cys Ser Glu Phe Met Ser Leu Trp Ala Gly Ser Asn Lys Lys Asn Met
145 150 155 160

Asn Gln Leu Tyr His Ser Asp Glu Phe Arg Ala Tyr Asp Trp Gly Asn
165 170 175

Asp Ala Asp Asn Met Lys His Tyr Asn Gln Ser His Pro Pro Ile Tyr
180 185 190

Asp Leu Thr Ala Met Lys Val Pro Thr Ala Ile Trp Ala Gly Gly His
195 200 205

Asp Val Leu Val Thr Pro Gln Asp Val Ala Arg Ile Leu Pro Gln Ile
210 215 220

Lys Ser Leu His Tyr Phe Lys Leu Leu Pro Asp Trp Asn His Phe Asp
225 230 235 240

Phe Val Trp Gly Leu Asp Ala Pro Gln Arg Met Tyr Ser Glu Ile Ile
245 250 255

<210> 178

<211> 95

<212> PRT

<213> Homo sapiens

<400> 178

Tyr Gln Thr Leu Val Pro Glu Asn Glu Ala Ala Gly Thr Ala Val Leu

1 5 10 15
 Arg Val Val Ala Gln Asp Pro Asp Ala Gly Glu Ala Gly Arg Leu Val
 20 25 30
 Tyr Ser Leu Ala Ala Leu Met Asn Ser Arg Ser Leu Glu Leu Phe Ser
 35 40 45
 Ile Asp Pro Gln Ser Gly Leu Ile Arg Thr Ala Ala Ala Leu Asp Arg
 50 55 60
 Glu Ser Met Glu Arg His Tyr Leu Arg Val Thr Ala Gln Asp His Gly
 65 70 75 80
 Ser Pro Arg Leu Ser Ala Thr Thr Met Val Ala Val Thr Val Ala
 85 90 95

<210> 179
 <211> 99
 <212> PRT
 <213> Homo sapiens

<400> 179
 Tyr Arg Glu Thr Leu Arg Glu Asn Val Glu Glu Gly Tyr Pro Ile Leu
 1 5 10 15
 Gln Leu Arg Ala Thr Asp Gly Asp Ala Pro Pro Asn Ala Asn Leu Arg
 20 25 30
 Tyr Arg Phe Val Gly Pro Pro Ala Ala Arg Ala Ala Ala Ala Ala
 35 40 45
 Phe Glu Ile Asp Pro Arg Ser Gly Leu Ile Ser Thr Ser Gly Arg Val
 50 55 60
 Asp Arg Glu His Met Glu Ser Tyr Glu Leu Val Val Glu Ala Ser Asp
 65 70 75 80
 Gln Gly Gln Glu Pro Gly Pro Arg Ser Ala Thr Val Arg Val His Ile
 85 90 95
 Thr Val Leu

<210> 180
 <211> 93
 <212> PRT
 <213> Homo sapiens

<400> 180
 Tyr Val Ala Gln Val Arg Glu Asp Val Arg Pro His Thr Val Val Leu
 1 5 10 15
 Arg Val Thr Ala Thr Asp Arg Asp Lys Asp Ala Asn Gly Leu Val His
 20 25 30

SECRET

Tyr Asn Ile Ile Ser Gly Asn Ser Arg Gly His Phe Ala Ile Asp Ser
35 40 45

Leu Thr Gly Glu Ile Gln Val Val Ala Pro Leu Asp Phe Glu Ala Glu
50 55 60

Arg Glu Tyr Ala Leu Arg Ile Arg Ala Gln Asp Ala Gly Arg Pro Pro
65 70 75 80

Leu Ser Asn Asn Thr Gly Leu Ala Ser Ile Gln Val Val
85 90

<210> 181

<211> 92

<212> PRT

<213> Homo sapiens

<400> 181

Phe Gln Val Ser Val Leu Glu Asn Ala Pro Leu Gly His Ser Val Ile
1 5 10 15

His Ile Gln Ala Val Asp Ala Asp His Gly Glu Asn Ala Arg Leu Glu
20 25 30

Tyr Ser Leu Thr Gly Val Ala Pro Asp Thr Pro Phe Val Ile Asn Ser
35 40 45

Ala Thr Gly Trp Val Ser Val Ser Gly Pro Leu Asp Arg Glu Ser Val
50 55 60

Glu His Tyr Phe Phe Gly Val Glu Ala Arg Asp His Gly Ser Pro Pro
65 70 75 80

Leu Ser Ala Ser Ala Ser Val Thr Val Thr Val Leu
85 90

<210> 182

<211> 45

<212> PRT

<213> Homo sapiens

<400> 182

Cys Ala Pro Asn Asn Pro Cys Ser Asn Gly Gly Thr Cys Val Asn Thr
1 5 10 15

Pro Gly Gly Ser Ser Asp Asn Phe Gly Gly Tyr Thr Cys Glu Cys Pro
20 25 30

Pro Gly Asp Tyr Tyr Leu Ser Tyr Thr Gly Lys Arg Cys
35 40 45

<210> 183

<211> 45

<212> PRT
<213> Homo sapiens

<400> 183

Cys Ala Pro Asn Asn Pro Cys Ser Asn Gly Gly Thr Cys Val Asn Thr
1 5 10 15

Pro Gly Gly Ser Ser Asp Asn Phe Gly Gly Tyr Thr Cys Glu Cys Pro
20 25 30

Pro Gly Asp Tyr Tyr Leu Ser Tyr Thr Gly Lys Arg Cys
35 40 45

<210> 184

<211> 45

<212> PRT

<213> Homo sapiens

<400> 184

Cys Ala Pro Asn Asn Pro Cys Ser Asn Gly Gly Thr Cys Val Asn Thr
1 5 10 15

Pro Gly Gly Ser Ser Asp Asn Phe Gly Gly Tyr Thr Cys Glu Cys Pro
20 25 30

Pro Gly Asp Tyr Tyr Leu Ser Tyr Thr Gly Lys Arg Cys
35 40 45

<210> 185

<211> 67

<212> PRT

<213> Homo sapiens

<400> 185

Cys Pro Ala Asn Glu Gln Tyr Thr Glu Cys Gly Pro Ser Cys Glu Pro
1 5 10 15

Ser Cys Ser Asn Pro Asp Gly Pro Leu Glu Thr Thr Pro Pro Cys Glu
20 25 30

Gly Thr Ser Pro Lys Val Pro Ser Thr Cys Lys Glu Gly Cys Val Cys
35 40 45

Gln Pro Gly Tyr Val Arg Asn Asn Asp Gly Asp Lys Cys Val Pro Arg
50 55 60

Ser Glu Cys
65

<210> 186

<211> 45

<212> PRT

<213> Homo sapiens

<400> 186

Cys Ala Pro Asn Asn Pro Cys Ser Asn Gly Gly Thr Cys Val Asn Thr
 1 5 10 15

Pro Gly Gly Ser Ser Asp Asn Phe Gly Gly Tyr Thr Cys Glu Cys Pro
 20 25 30

Pro Gly Asp Tyr Tyr Leu Ser Tyr Thr Gly Lys Arg Cys
 35 40 45

<210> 187

<211> 45

<212> PRT

<213> Homo sapiens

<400> 187

Cys Ala Pro Asn Asn Pro Cys Ser Asn Gly Gly Thr Cys Val Asn Thr
 1 5 10 15

Pro Gly Gly Ser Ser Asp Asn Phe Gly Gly Tyr Thr Cys Glu Cys Pro
 20 25 30

Pro Gly Asp Tyr Tyr Leu Ser Tyr Thr Gly Lys Arg Cys
 35 40 45

<210> 188

<211> 45

<212> PRT

<213> Homo sapiens

<400> 188

Cys Ala Pro Asn Asn Pro Cys Ser Asn Gly Gly Thr Cys Val Asn Thr
 1 5 10 15

Pro Gly Gly Ser Ser Asp Asn Phe Gly Gly Tyr Thr Cys Glu Cys Pro
 20 25 30

Pro Gly Asp Tyr Tyr Leu Ser Tyr Thr Gly Lys Arg Cys
 35 40 45

<210> 189

<211> 45

<212> PRT

<213> Homo sapiens

<400> 189

Cys Ala Pro Asn Asn Pro Cys Ser Asn Gly Gly Thr Cys Val Asn Thr
 1 5 10 15

Pro Gly Gly Ser Ser Asp Asn Phe Gly Gly Tyr Thr Cys Glu Cys Pro
 20 25 30

Pro Gly Asp Tyr Tyr Leu Ser Tyr Thr Gly Lys Arg Cys
 35 40 45

133352Z JUL 64 301400Z

<213> Homo sapiens

<400> 194

Tyr His Leu Arg Leu Asn Glu Asp Ala Ala Val Gly Thr Ser Val Val
1 5 10 15

Ser Val Thr Ala Val Asp Arg Asp Ala Asn Ser Ala Ile Ser Tyr Gln
20 25 30

Ile Thr Gly Gly Asn Thr Arg Asn Arg Phe Ala Ile Ser Thr Gln Gly
35 40 45

Gly Val Gly Leu Val Thr Leu Ala Leu Pro Leu Asp Tyr Lys Gln Glu
50 55 60

Arg Tyr Phe Lys Leu Val Leu Thr Ala Ser Asp Arg Ala Leu His Asp
65 70 75 80

His Cys Tyr Val His Ile Asn Ile Thr
85

<210> 195

$\langle 211 \rangle$ 90

<212> PRT

<213> Homo sapiens

<400> 195

Tyr Ser Val Ser Val Asn Glu Asp Arg Pro Met Gly Ser Thr Ile Val
1 5 10 15

Val Ile Ser Ala Ser Asp Asp Asp Val Gly Glu Asn Ala Arg Ile Thr
20 25 30

Tyr Leu Leu Glu Asp Asn Leu Pro Gln Phe Arg Ile Asp Ala Asp Ser
35 40 45

Gly Ala Ile Thr Leu Gln Ala Pro Leu Asp Tyr Glu Asp Gln Val Thr
50 55 60

Tyr Thr Leu Ala Ile Thr Ala Arg Asp Asn Gly Ile Pro Gln Lys Ala
65 70 75 80

Asp Thr Thr Tyr Val Glu Val Met Val Asn
85 90

<210> 196

<211> 45

<212> PRT

<213> Homo sapiens

<400> 196

Cys Ala Pro Asn Asn Pro Cys Ser Asn Gly Gly Thr Cys Val Asn Thr
1 5 10 15

Pro Gly Gly Ser Ser Asp Asn Phe Gly Gly Tyr Thr Cys Glu Cys Pro

<213> Homo sapiens

<400> 200

Cys Ala Pro Asn Asn Pro Cys Ser Asn Gly Gly Thr Cys Val Asn Thr
1 5 10 15

Pro Gly Gly Ser Ser Asp Asn Phe Gly Gly Tyr Thr Cys Glu Cys Pro
20 25 30

Pro Gly Asp Tyr Tyr Leu Ser Tyr Thr Gly Lys Arg Cys
35 40 45

<210> 201

<211> 45

<212> PRT

<213> Homo sapiens

<400> 201

Cys Ala Pro Asn Asn Pro Cys Ser Asn Gly Gly Thr Cys Val Asn Thr
1 5 10 15

Pro Gly Gly Ser Ser Asp Asn Phe Gly Gly Tyr Thr Cys Glu Cys Pro
20 25 30

Pro Gly Asp Tyr Tyr Leu Ser Tyr Thr Gly Lys Arg Cys
35 40 45

<210> 202

<211> 45

<212> PRT

<213> Homo sapiens

<400> 202

Cys Ala Pro Asn Asn Pro Cys Ser Asn Gly Gly Thr Cys Val Asn Thr
1 5 10 15

Pro Gly Gly Ser Ser Asp Asn Phe Gly Gly Tyr Thr Cys Glu Cys Pro
20 25 30

Pro Gly Asp Tyr Tyr Leu Ser Tyr Thr Gly Lys Arg Cys
35 40 45

<210> 203

<211> 18

<212> PRT

<213> Homo sapiens

<400> 203

Leu Pro Cys Glu Glu Val Thr Ser Ile Ile Glu Arg Asp Asn Ile Asp
1 5 10 15

Phe Lys

<210> 204
 <211> 30
 <212> PRT
 <213> Homo sapiens

<400> 204
 Phe Asp Arg Pro Arg Gly Val Ala Val Asp Pro Ser Asp Gly Gln Ile
 1 5 10 15
 Val Val Ala Asp Gln Ser Glu Asn His Arg Ile Gln Val Phe
 20 25 30

<210> 205
 <211> 30
 <212> PRT
 <213> Homo sapiens

<400> 205
 Phe Asp Arg Pro Arg Gly Val Ala Val Asp Pro Ser Asp Gly Gln Ile
 1 5 10 15
 Val Val Ala Asp Gln Ser Glu Asn His Arg Ile Gln Val Phe
 20 25 30

<210> 206
 <211> 28
 <212> PRT
 <213> Homo sapiens

<400> 206
 Leu Lys Val Glu Phe Asp Glu Leu Glu Thr Gly Leu Leu Lys Ser Ile
 1 5 10 15
 Thr Arg Lys Gln Asp Asn Lys Thr Val His Val Asn
 20 25

<210> 207
 <211> 93
 <212> PRT
 <213> Homo sapiens

<400> 207
 Tyr Thr Gly Leu Val Ser Glu Asp Ala Pro Pro Phe Thr Ser Val Leu
 1 5 10 15
 Gln Ile Ser Ala Thr Asp Arg Asp Ala His Ala Asn Gly Arg Val Gln
 20 25 30
 Tyr Thr Phe Gln Asn Gly Glu Asp Gly Asp Gly Asp Phe Thr Ile Glu
 35 40 45
 Pro Thr Ser Gly Ile Val Arg Thr Val Arg Arg Leu Asp Arg Glu Ala
 50 55 60

Val	Ser	Val	Tyr	Glu	Leu	Thr	Ala	Tyr	Ala	Val	Asp	Arg	Gly	Val	Pro
65					70					75					80

Pro Leu Arg Thr Pro Val Ser Ile Gln Val Met Val Gln
85 90

```
<210> 208
<211> 89
<212> PRT
<213> Homo sapiens
```

```

<400> 208
Phe Glu Val Arg Val Lys Glu Asn Ser Ile Val Gly Ser Val Val Ala
  1                      5                      10                      15

Gln Ile Thr Ala Val Asp Pro Asp Glu Gly Pro Asn Ala His Ile Met
      20                      25                      30

Tyr Gln Ile Val Glu Gly Asn Ile Pro Glu Leu Phe Gln Met Asp Ile
      35                      40                      45

Phe Ser Gly Glu Leu Thr Ala Leu Ile Asp Leu Asp Tyr Glu Ala Arg
  50                      55                      60

Gln Glu Tyr Val Ile Val Val Gln Ala Thr Ser Ala Pro Leu Val Ser
  65                      70                      75                      80

Arg Ala Thr Val His Val Arg Leu Val
      85

```

```
<210> 209
<211> 32
<212> PRT
<213> Homo sapiens
```

<400> 209
Cys Tyr Ser Asn Pro Cys Arg Asn Gly Gly Ala Cys Ala Arg Arg Glu
1 5 10 15
Gly Gly Tyr Thr Cys Val Cys Arg Pro Arg Phe Thr Gly Glu Asp Cys
20 25 30

```
<210> 210
<211> 35
<212> PRT
<213> Homo sapiens
```

<400> 210
Cys Val Pro Gly Val Cys Arg Asn Gly Gly Thr Cys Thr Asp Ala Pro
1 5 10 15

Asn Gly Gly Phe Arg Cys Gln Cys Pro Ala Gly Gly Ala Phe Glu Gly
20 25 30

Pro Arg Cys
35

<210> 211
<211> 65
<212> PRT
<213> Homo sapiens

<400> 211
Phe Ala Thr Val Gln Gln Ser Gly Leu Leu Phe Tyr Asn Gly Arg Leu
1 5 10 15

Asn Glu Lys His Asp Phe Leu Ala Leu Glu Leu Val Ala Gly Gln Val
20 25 30

Arg Leu Thr Tyr Ser Thr Gly Glu Ser Asn Thr Val Val Ser Pro Thr
35 40 45

Val Pro Gly Gly Leu Ser Asp Gly Gln Trp His Thr Val His Leu Arg
50 55 60

Tyr
65

<210> 212
<211> 17
<212> PRT
<213> Homo sapiens

<400> 212
Gly Ile Asp Leu Gly Gly Thr Lys Ile Glu Leu Ala Leu Val Asp Glu
1 5 10 15

Asp

<210> 213
<211> 12
<212> PRT
<213> Homo sapiens

<400> 213
Pro Val Ala Glu Ala Ile Ala Lys Glu Ile Lys Lys
1 5 10

<210> 214
<211> 360
<212> PRT
<213> Homo sapiens

301

290

295

300

Gln Val Ala Leu Arg Trp Ala Leu Gln Arg Gly Gly Gly Ala Gly Val
 305 310 315 320

Val Val Val Ile Pro Lys Ser Ser Asn Pro Glu Arg Ile Lys Glu Asn
 325 330 335

Leu Lys Ala Phe Asp Asp Phe Glu Leu Thr Glu Glu Asp Met Lys Ala
 340 345 350

Ile Asp Glu Leu Asp Arg Gly Lys
 355 360

<210> 215

<211> 17

<212> PRT

<213> Homo sapiens

<400> 215

Gly Ile Asp Leu Gly Gly Thr Lys Ile Glu Leu Ala Leu Val Asp Glu
 1 5 10 15

Asp

<210> 216

<211> 139

<212> PRT

<213> Homo sapiens

<400> 216

Met Pro Leu Leu Gly Leu Gly Thr Trp Gln Thr Pro Gly Glu Glu Asp
 1 5 10 15

Tyr Leu Trp Gly Arg Val Asp Lys Glu Glu Ala Lys Glu Ala Val Lys
 20 25 30

Ala Ala Leu Asp Ala Gly Tyr Arg His Ile Asp Thr Ala Ala Ile Tyr
 35 40 45

Gly Asn Gly Gln Lys Pro Gly Gln Ser Glu Glu Glu Val Gly Glu Ala
 50 55 60

Ile Lys Glu Ala Leu Glu Glu Gly Ser Val Val Val Ile Thr Lys Tyr
 65 70 75 80

Lys Arg Glu Asp Ile Phe Ile Thr Ser Asp Lys Leu Trp Asn Thr Phe
 85 90 95

Gly Pro Asp Leu Ser Glu Tyr Gly His Ser Pro Lys His Val Arg Glu
 100 105 110

Ala Leu Glu Lys Ser Leu Lys Arg Leu Gly Leu Asp Tyr Val Asp Leu
 115 120 125

Tyr Leu Ile His Trp Pro Asp Pro Phe Lys Pro
130 135

<210> 217
<211> 64
<212> PRT
<213> Homo sapiens

<400> 217
Pro Thr Asp Asp Asp Gly Lys Leu Ile Tyr Glu Asp Val Pro Ile Glu
1 5 10 15
Glu Thr Trp Lys Ala Leu Glu Lys Leu Val Asp Glu Gly Lys Val Arg
20 25 30
Ser Ile Gly Val Ser Asn Phe Ser Ala Glu Gln Leu Glu Glu Leu Leu
35 40 45
Ser Tyr Ala Gly Lys Leu Lys Leu Ile Pro Pro Val Val Asn Gln Val
50 55 60

<210> 218
<211> 54
<212> PRT
<213> Homo sapiens

<400> 218
Ala Leu Arg Trp Ala Leu Gln Arg Gly Gly Gly Ala Gly Val Val Val
1 5 10 15
Val Ile Pro Lys Ser Ser Asn Pro Glu Arg Ile Lys Glu Asn Leu Lys
20 25 30
Ala Phe Asp Asp Phe Glu Leu Thr Glu Glu Asp Met Lys Ala Ile Asp
35 40 45
Glu Leu Asp Arg Gly Lys
50

<210> 219
<211> 267
<212> PRT
<213> Homo sapiens

<400> 219
Met Lys Ala Ala Val Leu Thr Leu Ala Val Leu Phe Leu Thr Gly Ser
1 5 10 15
Gln Ala Arg His Phe Trp Gln Gln Asp Glu Pro Pro Gln Ser Pro Trp
20 25 30

THE UNIVERSITY OF CHICAGO

Asp Arg Val Lys Asp Leu Ala Thr Val Tyr Val Asp Val Leu Lys Asp
35 40 45

Ser Gly Arg Asp Tyr Val Ser Gln Phe Glu Gly Ser Ala Leu Gly Lys
50 55 60

Gln Leu Asn Leu Lys Leu Leu Asp Asn Trp Asp Ser Val Thr Ser Thr
65 70 75 80

Phe Ser Lys Leu Arg Glu Gln Leu Gly Pro Val Thr Gln Glu Phe Trp
85 90 95

Asp Asn Leu Glu Lys Glu Thr Glu Gly Leu Arg Gln Glu Met Ser Lys
100 105 110

Asp Leu Glu Glu Val Lys Ala Lys Val Gln Pro Tyr Leu Asp Asp Phe
115 120 125

Gln Lys Lys Trp Gln Glu Glu Met Glu Leu Tyr Arg Gln Lys Val Glu
130 135 140

Pro Leu Arg Ala Glu Leu Gln Glu Gly Ala Arg Gln Lys Leu His Glu
145 150 155 160

Leu Gln Glu Lys Leu Ser Pro Leu Gly Glu Glu Met Arg Asp Arg Ala
165 170 175

Arg Ala His Val Asp Ala Leu Arg Thr His Leu Ala Pro Tyr Ser Asp
180 185 190

Glu Leu Arg Gln Arg Leu Ala Ala Arg Leu Glu Ala Leu Lys Glu Asn
195 200 205

Gly Gly Ala Arg Leu Ala Glu Tyr His Ala Lys Ala Thr Glu His Leu
210 215 220

Ser Thr Leu Ser Glu Lys Ala Lys Pro Ala Leu Glu Asp Leu Arg Gln
225 230 235 240

Gly Leu Leu Pro Val Leu Glu Ser Phe Lys Val Ser Phe Leu Ser Ala
245 250 255

Leu Glu Glu Tyr Thr Lys Lys Leu Asn Thr Gln
260 265

$\langle 210 \rangle$ 220

<211> 249

<212> PRT

<213> Homo sapiens

<400> 220

Arg His Phe Trp Gln Gln Asp Glu Pro Pro Gln Ser Pro Trp Asp Arg
1 5 10 15

Val Lys Asp Leu Ala Thr Val Tyr Val Asp Val Leu Lys Asp Ser Gly

20 25 30
 Arg Asp Tyr Val Ser Gln Phe Glu Gly Ser Ala Leu Gly Lys Gln Leu
 35 40 45
 Asn Leu Lys Leu Leu Asp Asn Trp Asp Ser Val Thr Ser Thr Phe Ser
 50 55 60
 Lys Leu Arg Glu Gln Leu Gly Pro Val Thr Gln Glu Phe Trp Asp Asn
 65 70 75 80
 Leu Glu Lys Glu Thr Glu Gly Leu Arg Gln Glu Met Ser Lys Asp Leu
 85 90 95
 Glu Glu Val Lys Ala Lys Val Gln Pro Tyr Leu Asp Asp Phe Gln Lys
 100 105 110
 Lys Trp Gln Glu Glu Met Glu Leu Tyr Arg Gln Lys Val Glu Pro Leu
 115 120 125
 Arg Ala Glu Leu Gln Glu Gly Ala Arg Gln Lys Leu His Glu Leu Gln
 130 135 140
 Glu Lys Leu Ser Pro Leu Gly Glu Glu Met Arg Asp Arg Ala Arg Ala
 145 150 155 160
 His Val Asp Ala Leu Arg Thr His Leu Ala Pro Tyr Ser Asp Glu Leu
 165 170 175
 Arg Gln Arg Leu Ala Ala Arg Leu Glu Ala Leu Lys Glu Asn Gly Gly
 180 185 190
 Ala Arg Leu Ala Glu Tyr His Ala Lys Ala Thr Glu His Leu Ser Thr
 195 200 205
 Leu Ser Glu Lys Ala Lys Pro Ala Leu Glu Asp Leu Arg Gln Gly Leu
 210 215 220
 Leu Pro Val Leu Glu Ser Phe Lys Val Ser Phe Leu Ser Ala Leu Glu
 225 230 235 240
 Glu Tyr Thr Lys Lys Leu Asn Thr Gln
 245

<210> 221
 <211> 243
 <212> PRT
 <213> Homo sapiens

<400> 221
 Asp Glu Pro Pro Gln Ser Pro Trp Asp Arg Val Lys Asp Leu Ala Thr
 1 5 10 15
 Val Tyr Val Asp Val Leu Lys Asp Ser Gly Arg Asp Tyr Val Ser Gln
 20 25 30

45 100-3-6654, 100-3-6655

<210> 222

<211> 200

<212> PRT

<213> Unknown Organism

 $\langle 220 \rangle$

<223> Description of Unknown Organism: unidentified

<400> 222

Leu Lys Leu Leu Asp Asn Trp Asp Ser Val Thr Ser Thr Phe Ser Lys
1 5 10 15

Leu Arg Glu Gln Leu Gly Pro Val Thr Gln Glu Phe Trp Asp Asn Leu
20 25 30

Glu Lys Glu Thr Glu Gly Leu Arg Gln Glu Met Ser Lys Asp Leu Glu
35 40 45

Glu Val Lys Ala Lys Val Gln Pro Tyr Leu Asp Asp Phe Gln Lys Lys
50 55 60

Trp Gln Glu Glu Met Glu Leu Tyr Arg Gln Lys Val Glu Pro Leu Arg
65 70 75 80

Ala Glu Leu Gln Glu Gly Ala Arg Gln Lys Leu His Glu Leu Gln Glu
85 90 95

Lys Leu Ser Pro Leu Gly Glu Glu Met Arg Asp Cys Ala Arg Ala His
100 105 110

Val Asp Ala Leu Arg Thr His Leu Ala Pro Tyr Ser Asp Glu Leu Arg
115 120 125

Gln Arg Leu Ala Ala Arg Leu Glu Ala Leu Lys Glu Asn Gly Gly Ala
130 135 140

Arg Leu Ala Glu Tyr His Ala Lys Ala Thr Glu His Leu Ser Thr Leu
145 150 155 160

Ser Glu Lys Ala Lys Pro Ala Leu Glu Asp Leu Arg Gln Gly Leu Leu
165 170 175

Pro Val Leu Glu Ser Phe Lys Val Ser Phe Leu Ser Ala Leu Glu Glu
180 185 190

Tyr Thr Lys Lys Leu Asn Thr Gln
195 200

<210> 223

<211> 267

<212> PRT

<213> Cynomolgus monkey

<400> 223

Met Lys Ala Thr Val Leu Thr Leu Ala Val Leu Phe Leu Thr Gly Ser
1 5 10 15

Gln Ala Arg His Phe Trp Gln Gln Asp Glu Pro Pro Gln Thr Pro Trp
20 25 30

Asp Arg Val Lys Asp Leu Val Thr Val Tyr Val Glu Ala Leu Lys Asp
35 40 45

Ser Gly Lys Asp Tyr Val Ser Gln Phe Glu Gly Ser Ala Leu Gly Lys
50 55 60

Gln Leu Asn Leu Lys Leu Leu Asp Asn Trp Asp Ser Val Thr Ser Thr
65 70 75 80

Val Ser Lys Leu Arg Glu Gln Leu Gly Pro Val Thr Gln Glu Phe Trp

85 90 95
 Asp Asn Leu Glu Lys Glu Thr Glu Gly Leu Arg Gln Glu Met Ser Lys
 100 105 110
 Asp Leu Glu Glu Val Lys Ala Lys Val Gln Pro Tyr Leu Asp Asp Phe
 115 120 125
 Gln Lys Lys Trp Gln Glu Glu Met Glu Leu Tyr Arg Gln Lys Val Glu
 130 135 140
 Pro Leu Arg Ala Glu Leu His Glu Gly Thr Arg Gln Lys Leu His Glu
 145 150 155 160
 Leu His Glu Lys Leu Ser Pro Leu Gly Glu Glu Val Arg Asp Arg Ala
 165 170 175
 Arg Ala His Val Asp Ala Leu Arg Thr His Leu Ala Pro Tyr Ser Asp
 180 185 190
 Glu Leu Arg Gln Arg Leu Ala Ala Arg Leu Glu Ala Leu Lys Glu Asn
 195 200 205
 Gly Gly Ala Arg Leu Ala Glu Tyr His Ala Lys Ala Ser Glu His Leu
 210 215 220
 Ser Thr Leu Ser Glu Lys Ala Lys Pro Ala Leu Glu Asp Leu Arg Gln
 225 230 235 240
 Gly Leu Leu Pro Val Leu Glu Ser Phe Lys Val Ser Phe Leu Ser Ala
 245 250 255
 Leu Glu Glu Tyr Thr Lys Lys Leu Ser Thr Gln
 260 265

<210> 224
 <211> 90
 <212> PRT
 <213> Homo sapiens

<400> 224
 Met Ala Thr Thr Tyr Glu Glu Phe Ala Ala Lys Leu Asp Arg Leu Asp
 1 5 10 15
 Glu Glu Phe Asn Lys Lys Met Glu Glu Gln Asn Ala Lys Phe Phe Ala
 20 25 30
 Asp Lys Pro Asp Glu Ser Thr Leu Ser Pro Glu Met Lys Glu His Tyr
 35 40 45
 Glu Lys Phe Glu Lys Met Ile Gln Glu His Thr Asp Lys Phe Asn Lys
 50 55 60
 Lys Met Arg Glu His Ser Glu His Phe Lys Gln Lys Phe Ala Glu Leu
 65 70 75 80

Leu Glu Gln Gln Lys Asn Ala Gln Tyr Pro
85 90

<210> 225

<211> 277

<212> PRT

<213> Homo sapiens

<400> 225

Lys Ala Leu Val Leu Ala Leu Ala Leu Leu Leu Thr Gly Cys Gln
1 5 10 15

Ala Arg Ser Phe Trp Gln Ala Asp Glu Pro Glu Val Thr Glu Gln Ala
20 25 30

Trp Gln Gln Ser Gln Trp Asp Gln Val Lys Asp Arg Phe Trp Val Tyr
35 40 45

Leu Arg Gln Val Lys Asp Ser Ser Asp Gln Ala Val Glu Gln Leu Glu
50 55 60

Ser Ser Gln Val Thr Gln Glu Leu Asn Leu Leu Leu Glu Asp Asn Leu
65 70 75 80

Asp Glu Leu Lys Ser Tyr Ala Glu Glu Leu Gln Glu Gln Leu Gly Pro
85 90 95

Val Ala Gln Glu Phe Gln Ala Arg Leu Ser Lys Glu Thr Gln Ala Leu
100 105 110

Arg Ala Glu Leu Gly Lys Asp Leu Glu Asp Val Arg Asn Arg Leu Ala
115 120 125

Pro Tyr Arg Asp Glu Val Gln Ala Met Leu Gly Gln Asn Leu Glu Glu
130 135 140

Tyr Arg Gln Arg Leu Glu Pro Leu Ala Arg Glu Leu Arg Lys Arg Leu
145 150 155 160

Arg Arg Asp Ala Glu Glu Leu Gln Lys Arg Leu Ala Pro Tyr Ala Glu
165 170 175

Glu Leu Arg Glu Arg Ala Glu Arg Asn Val Asp Ala Leu Arg Glu Arg
180 185 190

Leu Gly Pro Tyr Val Glu Gln Leu Arg Gln Lys Ala Ala Thr Leu Leu
195 200 205

Thr Gln Arg Leu Glu Glu Leu Arg Glu Arg Ala Gln Pro Tyr Ala Glu
210 215 220

Glu Tyr Lys Glu Gln Leu Glu Glu Gln Leu Ser Glu Leu Arg Glu Lys
225 230 235 240

Leu Ala Pro Val Arg Glu Asp Leu Gln Glu Val Leu Thr Pro Val Leu
245 250 255

Glu Gln Ala Gln Leu Lys Leu Gln Ala Glu Ala Phe Gln Glu Glu Leu
260 265 270

Lys Lys Lys Leu Glu
275

<210> 226
<211> 267
<212> PRT
<213> Homo sapiens

<400> 226

Met Lys Ala Ala Val Leu Thr Leu Ala Val Leu Phe Leu Thr Gly Ser
1 5 10 15

Gln Ala Arg His Phe Trp Gln Gln Asp Glu Pro Pro Gln Ser Pro Trp
20 25 30

Asp Arg Val Lys Asp Leu Ala Thr Val Tyr Val Asp Val Leu Lys Asp
35 40 45

Ser Gly Arg Asp Tyr Val Ser Gln Phe Glu Gly Ser Ala Leu Gly Lys
50 55 60

Gln Leu Asn Leu Lys Leu Leu Asp Asn Trp Asp Ser Val Thr Ser Thr
65 70 75 80

Phe Ser Lys Leu Arg Glu Gln Leu Gly Pro Val Thr Gln Glu Phe Trp
85 90 95

Asp Asn Leu Glu Lys Glu Thr Glu Gly Leu Arg Gln Glu Met Ser Lys
100 105 110

Asp Leu Glu Glu Val Lys Ala Lys Val Gln Pro Tyr Leu Asp Asp Phe
115 120 125

Gln Lys Lys Trp Gln Glu Glu Met Glu Leu Tyr Arg Gln Lys Val Glu
130 135 140

Pro Leu Arg Ala Glu Leu Gln Glu Gly Ala Arg Gln Lys Leu His Glu
145 150 155 160

Leu Gln Glu Lys Leu Ser Pro Leu Gly Glu Glu Met Arg Asp Arg Ala
165 170 175

Arg Ala His Val Asp Ala Leu Arg Thr His Leu Ala Pro Tyr Ser Asp
180 185 190

Glu Leu Arg Gln Arg Leu Ala Ala Arg Leu Glu Ala Leu Lys Glu Asn
195 200 205

Gly Gly Ala Arg Leu Ala Glu Tyr His Ala Lys Ala Thr Glu His Leu
210 215 220

Ser Thr Leu Ser Glu Lys Ala Lys Pro Ala Leu Glu Asp Leu Arg Gln

1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045 2046 2047 2048 2049 2050 2051 2052 2053 2054 2055 2056 2057 2058 2059 2060 2061 2062 2063 2064 2065 2066 2067 2068 2069 2070 2071 2072 2073 2074 2075 2076 2077 2078 2079 2080 2081 2082 2083 2084 2085 2086 2087 2088 2089 2090 2091 2092 2093 2094 2095 2096 2097 2098 2099 2100 2101 2102 2103 2104 2105 2106 2107 2108 2109 2110 2111 2112 2113 2114 2115 2116 2117 2118 2119 2120 2121 2122 2123 2124 2125 2126 2127 2128 2129 2130 2131 2132 2133 2134 2135 2136 2137 2138 2139 2140 2141 2142 2143 2144 2145 2146 2147 2148 2149 2150 2151 2152 2153 2154 2155 2156 2157 2158 2159 2160 2161 2162 2163 2164 2165 2166 2167 2168 2169 2170 2171 2172 2173 2174 2175 2176 2177 2178 2179 2180 2181 2182 2183 2184 2185 2186 2187 2188 2189 2190 2191 2192 2193 2194 2195 2196 2197 2198 2199 2200 2201 2202 2203 2204 2205 2206 2207 2208 2209 2210 2211 2212 2213 2214 2215 2216 2217 2218 2219 2220 2221 2222 2223 2224 2225 2226 2227 2228 2229 2230 2231 2232 2233 2234 2235 2236 2237 2238 2239 2240 2241 2242 2243 2244 2245 2246 2247 2248 2249 2250 2251 2252 2253 2254 2255 2256 2257 2258 2259 2260 2261 2262 2263 2264 2265 2266 2267 2268 2269 2270 2271 2272 2273 2274 2275 2276 2277 2278 2279 2280 2281 2282 2283 2284 2285 2286 2287 2288 2289 2290 2291 2292 2293 2294 2295 2296 2297 2298 2299 2300 2301 2302 2303 2304 2305 2306 2307 2308 2309 2310 2311 2312 2313 2314 2315 2316 2317 2318 2319 2320 2321 2322 2323 2324 2325 2326 2327 2328 2329 2330 2331 2332 2333 2334 2335 2336 2337 2338 2339 2340 2341 2342 2343 2344 2345 2346 2347 2348 2349 2350 2351 2352 2353 2354 2355 2356 2357 2358 2359 2360 2361 2362 2363 2364 2365 2366 2367 2368 2369 2370 2371 2372 2373 2374 2375 2376 2377 2378 2379 2380 2381 2382 2383 2384 2385 2386 2387 2388 2389 2390 2391 2392 2393 2394 2395 2396 2397 2398 2399 2400 2401 2402 2403 2404 2405 2406 2407 2408 2409 2410 2411 2412 2413 2414 2415 2416 2417 2418 2419 2420 2421 2422 2423 2424 2425 2426 2427 2428 2429 2430 2431 2432 2433 2434 2435 2436 2437 2438 2439 2440 2441 2442 2443 2444 2445 2446 2447 2448 2449 2450 2451 2452 2453 2454 2455 2456 2457 2458 2459 2460 2461 2462 2463 2464 2465 2466 2467 2468 2469 2470 2471 2472 2473 2474 2475 2476 2477 2478 2479 2480 2481 2482 2483 2484 2485 2486 2487 2488 2489 2490 2491 2492 2493 2494 2495 2496 2497 2498 2499 2500 2501 2502 2503 2504 2505 2506 2507 2508 2509 2510 2511 2512 2513 2514 2515 2516 2517 2518 2519 2520 2521 2522 2523 2524 2525 2526 2527 2528 2529 2530 2531 2532 2533 2534 2535 2536 2537 2538 2539 2540 2541 2542 2543 2544 2545 2546 2547 2548 2549 2550 2551 2552 2553 2554 2555 2556 2557 2558 2559 2560 2561 2562 2563 2564 2565 2566 2567 2568 2569 2570 2571 2572 2573 2574 2575 2576 2577 2578 2579 2580 2581 2582 2583 2584 2585 2586 2587 2588 2589 2590 2591 2592 2593 2594 2595 2596 2597 2598 2599 2600 2601 2602 2603 2604 2605 2606 2607 2608 2609 2610 2611 2612 2613 2614 2615 2616 2617 2618 2619 2620 2621 2622 2623 2624 2625 2626 2627 2628 2629 2630 2631 2632 2633 2634 2635 2636 2637 2638 2639 2640 2641 2642 2643 2644 2645 2646 2647 2648 2649 2650 2651 2652 2653 2654 2655 2656 2657 2658 2659 2660 2661 2662 2663 2664 2665 2666 2667 2668 2669 2670 2671 2672 2673 2674 2675 2676 2677 2678 2679 2680 2681 2682 2683 2684 2685 2686 2687 2688 2689 2690 2691 2692 2693 2694 2695 2696 2697 2698 2699 2700 2701 2702 2703 2704 2705 2706 2707 2708 2709 2710 2711 2712 2713 2714 2715 2716 2717 2718 2719 2720 2721 2722 2723 2724 2725 2726 2727 2728 2729 2730 2731 2732 2733 2734 2735 2736 2737 2738 2739 2740 2741 2742 2743 2744 2745 2746 2747 2748 2749 2750 2751 2752 2753 2754 2755 2756 2757 2758 2759 2760 2761 2762 2763 2764 2765 2766 2767 2768 2769 2770 2771 2772 2773 2774 2775 2776 2777 2778 2779 2780 2781 2782 2783 2784 2785 2786 2787 2788 2789 2790 2791 2792 2793 2794 2795 2796 2797 2798 2799 2800 2801 2802 2803 2804 2805 2806 2807 2808

2025 RELEASE UNDER E.O. 14176

Glu Tyr Thr Lys Lys Leu Asn Thr Gln
245

```
<400> 228  
Asp Glu Pro Pro Gln Ser Pro Trp Asp Arg Val Lys Asp Leu Ala Thr  
      1              5              10             15
```

Val Tyr Val Asp Val Leu Lys Asp Ser Gly Arg Asp Tyr Val Ser Gln
20 25 30

Phe Glu Gly Ser Ala Leu Gly Lys Gln Leu Asn Leu Lys Leu Leu Asp
35 40 45

Asn Trp Asp Ser Val Thr Ser Thr Phe Ser Lys Leu Arg Glu Gln Leu
50 55 60

Gly Pro Val Thr Gln Glu Phe Trp Asp Asn Leu Glu Lys Glu Thr Glu
65 70 75 80

Gly Leu Arg Gln Glu Met Ser Lys Asp Leu Glu Glu Val Lys Ala Lys
85 90 95

Val Gln Pro Tyr Leu Asp Asp Phe Gln Lys Lys Trp Gln Glu Glu Met
100 105 110

Glu Leu Tyr Arg Gln Lys Val Glu Pro Leu Arg Ala Glu Leu Gln Glu
115 120 125

Gly Ala Arg Gln Lys Leu His Glu Leu Gln Glu Lys Leu Ser Pro Leu
130 135 140

Gly Glu Glu Met Arg Asp Arg Ala Arg Ala His Val Asp Ala Leu Arg
145 150 155 160

Thr His Leu Ala Pro Tyr Ser Asp Glu Leu Arg Gln Arg Leu Ala Ala
165 170 175

Arg Leu Glu Ala Leu Lys Glu Asn Gly Gly Ala Arg Leu Ala Glu Tyr
180 185 190

His Ala Lys Ala Thr Glu His Leu Ser Thr Leu Ser Glu Lys Ala Lys
195 200 205

Pro Ala Leu Glu Asp Leu Arg Gln Gly Leu Leu Pro Val Leu Glu Ser
210 215 220

Phe Lys Val Ser Phe Leu Ser Ala Leu Glu Glu Tyr Thr Lys Lys Leu
225 230 235 240

1949-50 10-12-50

Met Lys Ala Thr Val Leu Thr Leu Ala Val Leu Phe Leu Thr Gly Ser
1 5 10 15

Asp Arg Val Lys Asp Leu Val Thr Val Tyr Val Glu Ala Leu Lys Asp
35 40 45

Gln Leu Asn Leu Lys Leu Leu Asp Asn Trp Asp Ser Val Thr Ser Thr
65 70 75 80

Asp Asn Leu Glu Lys Glu Thr Glu Gly Leu Arg Gln' Glu Met Ser Lys
100 105 110

Asp Leu Glu Glu Val Lys Ala Lys Val Gln Pro Tyr Leu Asp Asp Phe
115 120 125

Gln Lys Lys Trp Gln Glu Glu Met Glu Leu Tyr Arg Gln Lys Val Glu
130 135 140

Pro Leu Arg Ala Glu Leu His Glu Gly Thr Arg Gln Lys Leu His Glu
145 150 155 160

Leu His Glu Lys Leu Ser Pro Leu Gly Glu Glu Val Arg Asp Arg Ala
165 170 175

Arg Ala His Val Asp Ala Leu Arg Thr His Leu Ala Pro Tyr Ser Asp
180 185 190

Glu Leu Arg Gln Arg Leu Ala Ala Arg Leu Glu Ala Leu Lys Glu Asn
195 200 205

Gly Gly Ala Arg Leu Ala Glu Tyr His Ala Lys Ala Ser Glu His Leu
210 215 220

Ser Thr Leu Ser Glu Lys Ala Lys Pro Ala Leu Glu Asp Leu Arg Gln
225 230 235 240

Gly Leu Leu Pro Val Leu Glu Ser Phe Lys Val Ser Phe Leu Ser Ala
245 250 255

Leu Glu Glu Tyr Thr Lys Lys Leu Ser Thr Gln
260 265

<211> 90

[illegible]

```
<210> 232
<211> 277
<212> PRT
<213> Homo sapiens
```

315

100-443884-401030

[illegible]

```
<210> 233
<211> 1348
<212> PRT
<213> Homo sapiens
```

<400> 233

Gly	Ala	Lys	Asp	Leu	Val	Cys	Ser	Lys	Met	Ser	Arg	Ala	Lys	Asp	Ala
1				5					10					15	
Val	Ser	Ser	Gly	Val	Ala	Ser	Val	Val	Asp	Val	Ala	Lys	Gly	Val	Val
			20					25					30		
Gln	Gly	Gly	Leu	Asp	Thr	Thr	Arg	Ser	Ala	Leu	Thr	Gly	Thr	Lys	Glu
		35					40					45			
Ala	Val	Ser	Ser	Gly	Val	Thr	Gly	Ala	Met	Asp	Met	Ala	Lys	Gly	Ala
	50					55					60				
Val	Gln	Gly	Gly	Leu	Asp	Thr	Ser	Lys	Ala	Val	Leu	Thr	Gly	Thr	Lys
65					70					75					80
Asp	Thr	Val	Ser	Thr	Gly	Leu	Thr	Gly	Ala	Val	Asn	Val	Ala	Lys	Gly
				85					90					95	
Thr	Val	Gln	Ala	Gly	Val	Asp	Thr	Thr	Lys	Thr	Val	Leu	Thr	Gly	Thr
			100					105					110		
Lys	Asp	Thr	Val	Thr	Thr	Gly	Val	Met	Gly	Ala	Val	Asn	Leu	Ala	Lys
		115					120					125			

Gly Thr Val Gln Thr Gly Val Glu Thr Ser Lys Ala Val Leu Thr Gly
130 135 140

Thr Lys Asp Ala Val Ser Thr Gly Leu Thr Gly Ala Val Asn Val Ala
145 150 155 160

Arg Gly Ser Ile Gln Thr Gly Val Asp Thr Ser Lys Thr Val Leu Thr
165 170 175

Gly Thr Lys Asp Thr Val Cys Ser Gly Val Thr Ser Ala Met Asn Val
180 185 190

Ala Lys Gly Thr Ile Gln Thr Gly Val Asp Thr Ser Lys Thr Val Leu
195 200 205

Thr Gly Thr Lys Asp Thr Val Cys Ser Gly Val Thr Gly Ala Met Asn
210 215 220

Val Ala Lys Gly Thr Ile Gln Thr Gly Val Asp Thr Ser Lys Thr Val
225 230 235 240

Leu Thr Gly Thr Lys Asp Thr Val Cys Ser Gly Val Thr Gly Ala Met
245 250 255

Asn Val Ala Lys Gly Thr Ile Gln Thr Gly Val Asp Thr Thr Lys Thr
260 265 270

Val Leu Thr Gly Thr Lys Asn Thr Val Cys Ser Gly Val Thr Gly Ala
275 280 285

Val Asn Leu Ala Lys Glu Ala Ile Gln Gly Gly Leu Asp Thr Thr Lys
290 295 300

Ser Met Val Met Gly Thr Lys Asp Thr Met Ser Thr Gly Leu Thr Gly
305 310 315 320

Ala Ala Asn Val Ala Lys Gly Ala Met Gln Thr Gly Leu Asn Thr Thr
325 330 335

Gln Asn Ile Ala Thr Gly Thr Lys Asp Thr Val Cys Ser Gly Val Thr
340 345 350

Gly Ala Met Asn Leu Ala Arg Gly Thr Ile Gln Thr Gly Val Asp Thr
355 360 365

Thr Lys Ile Val Leu Thr Gly Thr Lys Asp Thr Val Cys Ser Gly Val
370 375 380

Thr Gly Ala Ala Asn Val Ala Lys Gly Ala Val Gln Gly Gly Leu Asp
385 390 395 400

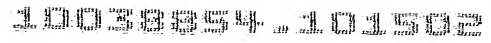
Thr Thr Lys Ser Val Leu Thr Gly Thr Lys Asp Ala Val Ser Thr Gly
405 410 415

Leu Thr Gly Ala Val Asn Val Ala Lys Gly Thr Val Gln Thr Gly Val
420 425 430

Asp Thr Thr Lys Thr Val Leu Thr Gly Thr Lys Asp Thr Val Cys Ser
 435 440 445
 Gly Val Thr Ser Ala Val Asn Val Ala Lys Gly Ala Val Gln Gly Gly
 450 455 460
 Leu Asp Thr Thr Lys Ser Val Val Ile Gly Thr Lys Asp Thr Met Ser
 465 470 475 480
 Thr Glv Leu Thr Glv Ala Ala Asn Val Ala Lys Gly Ala Val Gln Thr
 485 490 495
 Gly Val Asp Thr Ala Lys Thr Val Leu Thr Gly Thr Lys Asp Thr Val
 500 505 510
 Thr Thr Gly Leu Val Gly Ala Val Asn Val Ala Lys Gly Thr Val Gln
 515 520 525
 Thr Gly Met Asp Thr Thr Lys Thr Val Leu Thr Gly Thr Lys Asp Thr
 530 535 540
 Ile Tyr Ser Gly Val Thr Ser Ala Val Asn Val Ala Lys Gly Ala Val
 545 550 555 560
 Gln Thr Gly Leu Lys Thr Thr Gln Asn Ile Ala Thr Gly Thr Lys Asn
 565 570 575
 Thr Phe Gly Ser Gly Val Thr Gly Ala Val Asn Val Ala Lys Gly Ala
 580 585 590
 Val Gln Thr Gly Val Asp Thr Ala Lys Thr Val Leu Thr Gly Thr Lys
 595 600 605
 Asp Thr Val Thr Thr Gly Leu Met Gly Ala Val Asn Val Ala Lys Gly
 610 615 620
 Thr Val Gln Thr Ser Val Asp Thr Thr Lys Thr Val Leu Thr Gly Thr
 625 630 635 640
 Lys Asp Thr Val Cys Ser Gly Val Thr Gly Ala Ala Asn Val Ala Lys
 645 650 655
 Gly Ala Val Gln Thr Gly Val Asp Thr Ala Lys Thr Val Leu Thr Gly
 660 665 670
 Thr Lys Asp Thr Val Cys Ser Gly Val Thr Gly Ala Val Asn Val Ala
 675 680 685
 Lys Gly Ala Val Gln Thr Gly Leu Lys Thr Thr Gln Asn Ile Ala Thr
 690 695 700
 Gly Thr Lys Asn Thr Leu Gly Ser Gly Val Thr Gly Ala Ala Asn Val
 705 710 715 720
 Ala Lys Gly Ala Val Gln Gly Gly Leu Asp Thr Thr Lys Ser Val Leu
 725 730 735

Thr Gly Thr Lys Asp Ala Val Ser Thr Gly Leu Thr Gly Ala Val Asn
 740 745 750
 Leu Ala Lys Gly Thr Val Gln Thr Gly Met Asp Thr Thr Lys Thr Val
 755 760 765
 Leu Thr Gly Thr Lys Asp Ala Val Cys Ser Gly Val Thr Gly Ala Ala
 770 775 780
 Asn Val Ala Lys Gly Ala Val Gln Thr Gly Val Asp Thr Ala Lys Thr
 785 790 795 800
 Val Leu Thr Gly Thr Lys Asp Thr Val Thr Thr Gly Leu Met Gly Ala
 805 810 815
 Val Asn Val Ala Lys Gly Thr Val Gln Thr Ser Val Asp Thr Thr Lys
 820 825 830
 Thr Val Leu Thr Gly Thr Lys Asp Thr Val Cys Ser Gly Val Thr Gly
 835 840 845
 Ala Ala Asn Val Ala Lys Gly Ala Val Gln Gly Gly Leu Asp Thr Thr
 850 855 860
 Lys Ser Val Leu Thr Gly Thr Lys Asp Thr Val Ser Thr Gly Leu Thr
 865 870 875 880
 Gly Ala Val Asn Leu Ala Lys Gly Thr Val Gln Thr Gly Val Asp Thr
 885 890 895
 Ser Lys Thr Val Leu Thr Gly Thr Lys Asp Thr Val Cys Ser Gly Val
 900 905 910
 Thr Gly Ala Val Asn Val Ala Lys Gly Thr Val Gln Thr Gly Val Asp
 915 920 925
 Thr Ala Lys Thr Val Leu Ser Gly Ala Lys Asp Ala Val Thr Thr Gly
 930 935 940
 Val Thr Gly Ala Val Asn Val Ala Lys Gly Thr Val Gln Thr Gly Val
 945 950 955 960
 Asp Ala Ser Lys Ala Val Leu Met Gly Thr Lys Asp Thr Val Phe Ser
 965 970 975
 Gly Val Thr Gly Ala Met Ser Met Ala Lys Gly Ala Val Gln Gly Gly
 980 985 990
 Leu Asp Thr Thr Lys Thr Val Leu Thr Gly Thr Lys Asp Ala Val Ser
 995 1000 1005
 Ala Gly Leu Met Gly Ser Gly Asn Val Ala Thr Gly Ala Thr His Thr
 1010 1015 1020
 Gly Leu Ser Thr Phe Gln Asn Trp Leu Pro Ser Thr Pro Ala Thr Ser
 1025 1030 1035 1040

11 09 30 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000 1001 1002 1003 1004 1005 1006 1007 1008 1009 1010 1011 1012 1013 1014 1015 1016 1017 1018 1019 1020 1021 1022 1023 1024 1025 1026 1027 1028 1029 1030 1031 1032 1033 1034 1035 1036 1037 1038 1039 1040 1041 1042 1043 1044 1045 1046 1047 1048 1049 1050 1051 1052 1053 1054 1055 1056



Ala Gly Gly Gln
1345

<210> 234
<211> 1403
<212> PRT
<213> Mus musculus

<400> 234
Met Ser Ala Ser Gly Asp Gly Thr Arg Val Pro Pro Lys Ser Lys Gly
1 5 10 15
Lys Thr Leu Ser Ser Phe Phe Gly Ser Leu Pro Gly Phe Ser Ser Ala
20 25 30
Arg Asn Leu Val Ser His Thr His Ser Ser Thr Ser Thr Lys Asp Leu
35 40 45
Gln Thr Ala Thr Asp Pro Ser Gly Thr Pro Ala Pro Ser Ser Lys Val
50 55 60
Ser Thr Asn Ser Gln Met Ala Gly Asp Ala Ala Gly Leu Leu Gln Pro
65 70 75 80
Ser Glu Gln Thr Ala Gly Asp Lys Asp Met Gly Ser Phe Ser Val Thr
85 90 95
Ser Ser Glu Asp Ala Phe Ser Gly Val Phe Gly Ile Met Asp Ala Ala
100 105 110
Lys Gly Met Val Gln Gly Gly Leu Gly Ala Thr Gln Ser Ala Leu Val
115 120 125
Gly Thr Lys Glu Ala Val Ser Gly Gly Val Met Gly Ala Val Gly Val
130 135 140
Ala Lys Gly Leu Val Lys Gly Gly Leu Asp Thr Ser Lys Asn Val Leu
145 150 155 160
Thr Asn Thr Lys Asp Thr Val Thr Thr Gly Val Met Gly Ala Ala Asn
165 170 175
Met Ala Lys Gly Thr Val Gln Thr Gly Leu Asp Thr Thr Lys Ser Val
180 185 190
Val Met Gly Thr Lys Asp Thr Val Ala Thr Gly Leu Ala Gly Ala Val
195 200 205
Asn Val Ala Lys Gly Thr Ile Gln Gly Gly Leu Asp Thr Thr Lys Ser
210 215 220
Val Val Met Gly Thr Lys Asp Thr Val Thr Thr Gly Leu Thr Gly Ala
225 230 235 240
Ala Asn Val Ala Lys Gly Val Val Gln Gly Gly Leu Asp Thr Thr Lys
245 250 255

11-11-64 10:00 AM

Ser	Val	Val	Met	Gly	Thr	Lys	Asp	Thr	Val	Thr	Thr	Gly	Leu	Thr	Gly
			260										270		
Ala	Met	Asn	Val	Ala	Lys	Gly	Thr	Ala	Gln	Met	Gly	Ile	Asp	Thr	Ser
		275					280					285			
Lys	Thr	Val	Leu	Thr	Gly	Thr	Lys	Asp	Thr	Val	Cys	Ala	Gly	Ala	Thr
	290					295					300				
Gly	Ala	Ile	Asn	Val	Ala	Lys	Gly	Ala	Ala	Gln	Gly	Gly	Leu	Asp	Thr
305					310					315					320
Thr	Lys	Ser	Val	Leu	Ile	Gly	Thr	Lys	Asp	Thr	Val	Thr	Thr	Gly	Leu
				325					330					335	
Thr	Gly	Ala	Val	Asn	Val	Ala	Lys	Gly	Ala	Val	Gln	Gly	Gly	Leu	Asp
			340					345					350		
Thr	Thr	Lys	Ser	Val	Val	Met	Gly	Thr	Lys	Asp	Thr	Val	Thr	Thr	Gly
		355					360					365			
Leu	Thr	Gly	Ala	Met	Asn	Val	Ala	Lys	Gly	Thr	Ala	Gln	Met	Gly	Leu
	370					375					380				
Gly	Thr	Ser	Lys	Thr	Val	Leu	Thr	Gly	Thr	Lys	Asp	Thr	Val	Cys	Ala
385					390					395					400
Gly	Leu	Thr	Gly	Ala	Ile	Asn	Val	Ala	Lys	Gly	Ala	Ala	Gln	Gly	Gly
				405					410					415	
Leu	Asp	Thr	Thr	Lys	Ser	Val	Leu	Met	Gly	Thr	Lys	Asp	Thr	Val	Thr
			420					425					430		
Thr	Gly	Leu	Thr	Gly	Ala	Val	Asn	Val	Ala	Lys	Gly	Thr	Ile	Gln	Gly
		435					440					445			
Gly	Leu	Asp	Thr	Thr	Lys	Ser	Val	Val	Met	Gly	Thr	Lys	Asp	Thr	Val
	450					455					460				
Thr	Thr	Gly	Leu	Thr	Gly	Ala	Val	Asn	Val	Ala	Lys	Gly	Thr	Ile	Gln
465					470					475					480
Gly	Gly	Leu	Asp	Thr	Thr	Lys	Ser	Val	Val	Met	Gly	Thr	Lys	Asp	Thr
				485					490					495	
Val	Thr	Thr	Gly	Leu	Thr	Gly	Ala	Val	Asn	Val	Ala	Lys	Gly	Ala	Ala
			500					505					510		
Gln	Gly	Gly	Leu	Asp	Thr	Thr	Lys	Ser	Val	Val	Met	Gly	Thr	Lys	Asp
		515					520					525			
Thr	Val	Thr	Thr	Gly	Leu	Thr	Gly	Ala	Met	Asn	Val	Ala	Lys	Gly	Thr
						535					540				
Ala	Gln	Met	Gly	Leu	Gly	Thr	Ser	Lys	Thr	Val	Leu	Thr	Gly	Thr	Lys
545					550					555					560

Asp	Thr	Val	Cys	Ala	Gly	Leu	Thr	Gly	Ala	Ile	Asn	Val	Ala	Lys	Gly		
				565				570				575					
Ala	Ala	Gln	Gly	Gly	Leu	Asp	Thr	Thr	Lys	Ser	Val	Leu	Met	Gly	Thr		
				580				585				590					
Lys	Asp	Thr	Val	Thr	Thr	Gly	Leu	Thr	Gly	Ala	Val	Asn	Val	Ala	Lys		
				595				600				605					
Gly	Thr	Ile	Gln	Gly	Gly	Leu	Asp	Thr	Thr	Lys	Ser	Val	Val	Met	Gly		
				610				615				620					
Thr	Lys	Asp	Thr	Val	Thr	Thr	Gly	Leu	Thr	Gly	Ala	Val	Asn	Val	Ala		
				625				630				635				640	
Lys	Gly	Ala	Val	Gln	Gly	Gly	Leu	Asp	Thr	Thr	Lys	Ser	Val	Val	Met		
				645				650				655					
Gly	Thr	Lys	Asp	Thr	Val	Thr	Thr	Gly	Leu	Thr	Gly	Ala	Leu	Asn	Val		
				660				665				670					
Ala	Lys	Gly	Thr	Ala	Gln	Met	Gly	Ile	Asp	Thr	Ser	Lys	Thr	Val	Leu		
				675				680				685					
Ile	Gly	Thr	Lys	Asp	Thr	Val	Cys	Ala	Gly	Ala	Thr	Gly	Ala	Ile	Asn		
				690				695				700					
Met	Ala	Lys	Gly	Ala	Ala	Gln	Gly	Gly	Leu	Asp	Thr	Thr	Lys	Ser	Val		
				705				710				715				720	
Leu	Met	Gly	Thr	Lys	Asp	Thr	Val	Thr	Thr	Gly	Leu	Thr	Gly	Ala	Ile		
				725				730				735					
Asn	Val	Ala	Lys	Gly	Ser	Ala	Gln	Gly	Gly	Leu	Asp	Thr	Thr	Lys	Ser		
				740				745				750					
Val	Leu	Ile	Gly	Thr	Lys	Asp	Thr	Val	Thr	Thr	Gly	Leu	Thr	Gly	Ala		
				755				760				765					
Leu	Asn	Val	Ala	Lys	Gly	Thr	Val	Gln	Thr	Gly	Leu	Asp	Thr	Ser	Gln		
				770				775				780					
Arg	Val	Leu	Thr	Gly	Thr	Lys	Asp	Asn	Val	Tyr	Ala	Gly	Val	Thr	Gly		
				785				790				795				800	
Ala	Val	Asn	Val	Ala	Lys	Gly	Thr	Ile	Gln	Gly	Gly	Leu	Asp	Thr	Thr		
				805				810				815					
Lys	Ser	Val	Val	Met	Gly	Thr	Lys	Asp	Thr	Val	Thr	Thr	Gly	Leu	Thr		
				820				825				830					
Gly	Ala	Val	Asn	Val	Ala	Lys	Gly	Ala	Val	Gln	Gly	Gly	Leu	Asp	Thr		
				835				840				845					
Thr	Lys	Ser	Val	Val	Met	Gly	Thr	Lys	Asp	Thr	Val	Thr	Thr	Gly	Leu		
				850				855				860					

Thr Gly Ala Met Asn Val Ala Lys Gly Thr Ala Gln Met Gly Ile Asp
865 870 875 880

Thr Ser Lys Thr Val Leu Thr Gly Thr Lys Asp Thr Val Cys Ala Gly
885 890 895

Leu Thr Gly Ala Ile Asn Val Ala Lys Gly Ala Thr Gln Gly Gly Leu
900 905 910

Asp Thr Thr Lys Ser Val Leu Met Gly Thr Lys Asp Thr Val Thr Thr
915 920 925

Gly Leu Thr Gly Ala Ile Asn Val Ala Lys Gly Ala Ala Gln Gly Gly
930 935 940

Leu Asp Thr Thr Lys Ser Val Leu Leu Gly Thr Lys Asp Thr Val Thr
945 950 955 960

Thr Gly Leu Thr Gly Ala Ala Asn Val Ala Lys Glu Thr Val Gln Met
965 970 975

Gly Leu Asp Thr Ser Lys Asn Ile Leu Met Asp Thr Lys Asp Ser Ile
980 985 990

Cys Ala Gly Ala Thr Gly Ala Ile Thr Val Val Lys Gly Ala Ala Gln
995 1000 1005

Gly Gly Leu Asp Thr Ser Asn Ala Ala Leu Thr Gly Thr Met Asp Thr
1010 1015 1020

Ala Lys Gly Thr Val Gln Thr Ser Leu Asp Thr Ser Lys His Met Leu
1025 1030 1035 1040

Ile Gly Met Lys Asp Thr Val Cys Ala Gly Val Thr Ser Ala Met Asn
1045 1050 1055

Met Ala Lys Gly Ile His Lys Asn Thr Asp Thr Thr Arg Asp Thr Gln
1060 1065 1070

Ser Ser Val Leu Ala His Ser Gly Asn Val Ala Thr Asn Ala Ile His
1075 1080 1085

Thr Gly Val His Thr Val Pro Ser Ser Leu Ser Gly Ser His Ser Ile
1090 1095 1100

Ile Cys His Glu Pro Ser Ile Tyr Arg Ala Thr Asn His Gly Val Gly
1105 1110 1115 1120

His Ala Ile Leu Thr Ser Thr Glu Ser Leu Cys Cys Glu Thr Ser Ser
1125 1130 1135

Phe Ser Asp Lys Tyr Gly Leu Gly His Val Thr Glu Pro Arg Ala Asp
1140 1145 1150

Thr Lys Thr Leu Val Ser Gly Met Ala Ser Ser Ala Cys Ala Ala Thr
1155 1160 1165

10-5036-1-5037

Arg Ser Val Glu Glu Cys Gly Gln Leu Ala Ala Thr Gly Phe Ala Ala
1170 1175 1180

Leu Pro Asp Glu Leu Lys Gly Leu Gly Asp Ile Phe Gln Pro Met Thr
1185 1190 1195 1200

Thr Glu Glu Gln Ala Gln Leu Ala Val Ser Glu Ser Gly Pro Arg Val
1205 1210 1215

Leu Ser Ala Asp Arg Gly Ser Tyr Tyr Ile Arg Leu Gly Asp Leu Ala
1220 1225 1230

Pro Ser Phe Arg Gln Arg Ala Phe Glu His Ala Leu Ser His Ile Gln
1235 1240 1245

His Asn Gln Phe Gln Ala Arg Ala Ala Val Ala Gln Leu Gln Glu Ala
1250 1255 1260

Phe Gln Met Thr Asp Met Thr Met Glu Ala Ala Cys Gly Lys Leu Cys
1265 1270 1275 1280

Ser Asp Gln Ser Leu Asn Thr Met Val Glu Ala Val Gly Ser His Glu
1285 1290 1295

Met Arg Ala Ser Val Ala Gln Asp Arg Leu Cys Thr Leu Ala His Gln
1300 1305 1310

Leu His Ala Ala Tyr Ser Ser Leu Val Thr Ser Leu Gln Gly Leu Pro
1315 1320 1325

Glu Val Gln Gln Gln Ala Gly Gln Ala Arg His Ser Leu Cys Lys Leu
1330 1335 1340

Tyr Gly Leu Val Ser Ser Glu Ala Gly Ser Glu Leu Gln Thr Glu Gln
1345 1350 1355 1360

Leu Ala Gln Ser Ser Ala Gly Val Val Glu Ala Trp Gln Gly Leu Glu
1365 1370 1375

Val Leu Leu Glu Lys Leu Gln Gln Asn Pro Pro Leu Ser Trp Leu Val
1380 1385 1390

Gly Pro Phe Thr Ser Met Pro Cys Gly Gln Leu
1395 1400

<210> 235

<211> 75

<212> PRT

<213> Homo sapiens

<400> 235

Glu Lys Ala Lys Glu Thr Ala Asp Ser Ala Lys Glu Lys Ala Ser Glu
1 5 10 15

Ala Lys Asp Ala Ala Lys Asp Lys Ala Glu Glu Ala Lys Asp Ala Ala

20 25 30
 Lys Glu Lys Ala Glu Glu Ala Lys Asp Lys Ala Lys Glu Lys Lys Ala
 35 40 45
 Gly Glu Ala Lys Asp Lys Thr Gly Asn Lys Ala Lys Glu Lys Ala Glu
 50 55 60
 Glu Ala Lys Asp Lys Ala Ser Asp Ala Lys Asp
 65 70 75

<210> 236
 <211> 75
 <212> PRT
 <213> Homo sapiens

<400> 236
 Glu Lys Ala Lys Glu Thr Ala Asp Ser Ala Lys Glu Lys Ala Ser Glu
 1 5 10 15
 Ala Lys Asp Ala Ala Lys Asp Lys Ala Glu Glu Ala Lys Asp Ala Ala
 20 25 30
 Lys Glu Lys Ala Glu Glu Ala Lys Asp Lys Ala Lys Glu Lys Lys Ala
 35 40 45
 Gly Glu Ala Lys Asp Lys Thr Gly Asn Lys Ala Lys Glu Lys Ala Glu
 50 55 60
 Glu Ala Lys Asp Lys Ala Ser Asp Ala Lys Asp
 65 70 75

<210> 237
 <211> 75
 <212> PRT
 <213> Homo sapiens

<400> 237
 Glu Lys Ala Lys Glu Thr Ala Asp Ser Ala Lys Glu Lys Ala Ser Glu
 1 5 10 15
 Ala Lys Asp Ala Ala Lys Asp Lys Ala Glu Glu Ala Lys Asp Ala Ala
 20 25 30
 Lys Glu Lys Ala Glu Glu Ala Lys Asp Lys Ala Lys Glu Lys Lys Ala
 35 40 45
 Gly Glu Ala Lys Asp Lys Thr Gly Asn Lys Ala Lys Glu Lys Ala Glu
 50 55 60
 Glu Ala Lys Asp Lys Ala Ser Asp Ala Lys Asp
 65 70 75

<210> 238

<211> 75
 <212> PRT
 <213> Homo sapiens

<400> 238
 Glu Lys Ala Lys Glu Thr Ala Asp Ser Ala Lys Glu Lys Ala Ser Glu
 1 5 10 15
 Ala Lys Asp Ala Ala Lys Asp Lys Ala Glu Glu Ala Lys Asp Ala Ala
 20 25 30
 Lys Glu Lys Ala Glu Glu Ala Lys Asp Lys Ala Lys Glu Lys Lys Ala
 35 40 45
 Gly Glu Ala Lys Asp Lys Thr Gly Asn Lys Ala Lys Glu Lys Ala Glu
 50 55 60
 Glu Ala Lys Asp Lys Ala Ser Asp Ala Lys Asp
 65 70 75

<210> 239
 <211> 411
 <212> PRT
 <213> Homo sapiens

<400> 239
 Met Ala Thr Ala Val Glu Asp Leu Pro Gln Gln Glu Ser Val Val Asp
 1 5 10 15
 Arg Val Ala Ser Leu Pro Leu Val Ser Ser Thr Ile Lys Cys Asp Leu
 20 25 30
 Val Ser Ala Ala Tyr Asp Ser Thr Lys Glu Asn Tyr Pro Leu Val Lys
 35 40 45
 Gly Val Lys Ser Val Cys Glu Ala Ala Glu Lys Gly Val Glu Thr Ile
 50 55 60
 Thr Ser Ala Ala Val Thr Ser Ala Gln Pro Ile Val Lys Lys Leu Glu
 65 70 75 80
 Pro Gln Ile Ala Val Ala Asn Glu Tyr Ala Cys Lys Gly Leu Asp Lys
 85 90 95
 Leu Glu Glu Lys Leu Pro Ile Leu Gln Gln Pro Pro Glu Lys Ile Val
 100 105 110
 Ala Asn Ala Lys Gly Ala Val Thr Gly Ala Lys Asp Ala Val Ser Thr
 115 120 125
 Arg Val Glu Ser Ala Lys Asp Ser Val Val Gln Pro Ile Leu Glu Arg
 130 135 140
 Val Asp Lys Val Lys Gly Ala Val Gln Ala Gly Val Glu Ser Thr Lys
 145 150 155 160

Ser Val Val Thr Gly Ser Ala Asn Thr Val Leu Gly Ser Arg Val Gly
 165 170 175
 Gln Leu Ala Ser Ser Gly Val Asp Thr Ala Leu Gly Lys Ser Glu Lys
 180 185 190
 Leu Val Glu Gln Tyr Leu Pro Pro Thr Glu Glu Glu Leu Glu Lys Glu
 195 200 205
 Ala Lys Lys Val Glu Gly Phe Asp Ser Lys Lys Val Gln Gln Gln Arg
 210 215 220
 Gln Lys Pro Ser Ala Leu Val Arg Leu Gly Ser Leu Ser Glu Lys Leu
 225 230 235 240
 Arg Arg Arg Ala Tyr Gln Gln Ala Leu Gly Arg Val Arg Ala Ala Lys
 245 250 255
 Gln Arg Ser Gln Glu Ala Ile His Gln Leu Gln Ser Val Ala Glu Leu
 260 265 270
 Ile Glu Thr Ala Lys Lys Gly Val Ser Gln Ala Asn Gln Lys Val Ser
 275 280 285
 Arg Ala Gln Asp Lys Leu Tyr Val Leu Trp Leu Glu Trp Lys Ala Ser
 290 295 300
 Ser Gly Glu Asp Pro Glu Asp Glu Ser Asp Thr Glu Pro Glu Gln Ile
 305 310 315 320
 Glu Ser Arg Ile Leu Leu Leu Thr Arg Glu Leu Ala Gln Gln Leu Val
 325 330 335
 Ala Ala Leu Lys Thr Leu Leu Ser Ser Ile Gln Gly Ile Pro Gln Asn
 340 345 350
 Leu Gln Asp Thr Val Gln Gln Val Gly Ser Met Ser Gly Asp Ala Tyr
 355 360 365
 Ser Ala Phe Arg Ser Arg Ala Ala Ser Phe Lys Glu Thr Ser Asp Gly
 370 375 380
 Leu Leu Thr Ser Ser Lys Gly Arg Val Ala Ser Leu Lys Glu Ala Leu
 385 390 395 400
 Asp Glu Val Met Asp Tyr Val Val Ser Asn Thr
 405 410

<210> 240

<211> 1348

<212> PRT

<213> Homo sapiens

<400> 240

Gly Ala Lys Asp Leu Val Cys Ser Lys Met Ser Arg Ala Lys Asp Ala
 1 5 10 15

Val Ser Ser Gly Val Ala Ser Val Val Asp Val Ala Lys Gly Val Val
20 25 30

Gln Gly Gly Leu Asp Thr Thr Arg Ser Ala Leu Thr Gly Thr Lys Glu
35 40 45

Ala Val Ser Ser Gly Val Thr Gly Ala Met Asp Met Ala Lys Gly Ala
50 55 60

Val Gln Gly Gly Leu Asp Thr Ser Lys Ala Val Leu Thr Gly Thr Lys
65 70 75 80

Asp Thr Val Ser Thr Gly Leu Thr Gly Ala Val Asn Val Ala Lys Gly
85 90 95

Thr Val Gln Ala Gly Val Asp Thr Thr Lys Thr Val Leu Thr Gly Thr
100 105 110

Lys Asp Thr Val Thr Thr Gly Val Met Gly Ala Val Asn Leu Ala Lys
115 120 125

Gly Thr Val Gln Thr Gly Val Glu Thr Ser Lys Ala Val Leu Thr Gly
130 135 140

Thr Lys Asp Ala Val Ser Thr Gly Leu Thr Gly Ala Val Asn Val Ala
145 150 155 160

Arg Gly Ser Ile Gln Thr Gly Val Asp Thr Ser Lys Thr Val Leu Thr
165 170 175

Gly Thr Lys Asp Thr Val Cys Ser Gly Val Thr Ser Ala Met Asn Val
180 185 190

Ala Lys Gly Thr Ile Gln Thr Gly Val Asp Thr Ser Lys Thr Val Leu
195 200 205

Thr Gly Thr Lys Asp Thr Val Cys Ser Gly Val Thr Gly Ala Met Asn
210 215 220

Val Ala Lys Gly Thr Ile Gln Thr Gly Val Asp Thr Ser Lys Thr Val
225 230 235 240

Leu Thr Gly Thr Lys Asp Thr Val Cys Ser Gly Val Thr Gly Ala Met
245 250 255

Asn Val Ala Lys Gly Thr Ile Gln Thr Gly Val Asp Thr Thr Lys Thr
260 265 270

Val Leu Thr Gly Thr Lys Asn Thr Val Cys Ser Gly Val Thr Gly Ala
275 280 285

Val Asn Leu Ala Lys Glu Ala Ile Gln Gly Gly Leu Asp Thr Thr Lys
290 295 300

Ser Met Val Met Gly Thr Lys Asp Thr Met Ser Thr Gly Leu Thr Gly
305 310 315 320

Ala Ala Asn Val Ala Lys Gly Ala Met Gln Thr Gly Leu Asn Thr Thr
 325 330 335
 Gln Asn Ile Ala Thr Gly Thr Lys Asp Thr Val Cys Ser Gly Val Thr
 340 345 350
 Gly Ala Met Asn Leu Ala Arg Gly Thr Ile Gln Thr Gly Val Asp Thr
 355 360 365
 Thr Lys Ile Val Leu Thr Gly Thr Lys Asp Thr Val Cys Ser Gly Val
 370 375 380
 Thr Gly Ala Ala Asn Val Ala Lys Gly Ala Val Gln Gly Gly Leu Asp
 385 390 395 400
 Thr Thr Lys Ser Val Leu Thr Gly Thr Lys Asp Ala Val Ser Thr Gly
 405 410 415
 Leu Thr Gly Ala Val Asn Val Ala Lys Gly Thr Val Gln Thr Gly Val
 420 425 430
 Asp Thr Thr Lys Thr Val Leu Thr Gly Thr Lys Asp Thr Val Cys Ser
 435 440 445
 Gly Val Thr Ser Ala Val Asn Val Ala Lys Gly Ala Val Gln Gly Gly
 450 455 460
 Leu Asp Thr Thr Lys Ser Val Val Ile Gly Thr Lys Asp Thr Met Ser
 465 470 475 480
 Thr Gly Leu Thr Gly Ala Ala Asn Val Ala Lys Gly Ala Val Gln Thr
 485 490 495
 Gly Val Asp Thr Ala Lys Thr Val Leu Thr Gly Thr Lys Asp Thr Val
 500 505 510
 Thr Thr Gly Leu Val Gly Ala Val Asn Val Ala Lys Gly Thr Val Gln
 515 520 525
 Thr Gly Met Asp Thr Thr Lys Thr Val Leu Thr Gly Thr Lys Asp Thr
 530 535 540
 Ile Tyr Ser Gly Val Thr Ser Ala Val Asn Val Ala Lys Gly Ala Val
 545 550 555 560
 Gln Thr Gly Leu Lys Thr Thr Gln Asn Ile Ala Thr Gly Thr Lys Asn
 565 570 575
 Thr Phe Gly Ser Gly Val Thr Gly Ala Val Asn Val Ala Lys Gly Ala
 580 585 590
 Val Gln Thr Gly Val Asp Thr Ala Lys Thr Val Leu Thr Gly Thr Lys
 595 600 605
 Asp Thr Val Thr Thr Gly Leu Met Gly Ala Val Asn Val Ala Lys Gly
 610 615 620

Thr Val Gln Thr Ser Val Asp Thr Thr Lys Thr Val Leu Thr Gly Thr
625 630 635 640

Lys Asp Thr Val Cys Ser Gly Val Thr Gly Ala Ala Asn Val Ala Lys
645 650 655

Gly Ala Val Gln Thr Gly Val Asp Thr Ala Lys Thr Val Leu Thr Gly
660 665 670

Thr Lys Asp Thr Val Cys Ser Gly Val Thr Gly Ala Val Asn Val Ala
675 680 685

Lys Gly Ala Val Gln Thr Gly Leu Lys Thr Thr Gln Asn Ile Ala Thr
690 695 700

Gly Thr Lys Asn Thr Leu Gly Ser Gly Val Thr Gly Ala Ala Asn Val
705 710 715 720

Ala Lys Gly Ala Val Gln Gly Gly Leu Asp Thr Thr Lys Ser Val Leu
725 730 735

Thr Gly Thr Lys Asp Ala Val Ser Thr Gly Leu Thr Gly Ala Val Asn
740 745 750

Leu Ala Lys Gly Thr Val Gln Thr Gly Met Asp Thr Thr Lys Thr Val
755 760 765

Leu Thr Gly Thr Lys Asp Ala Val Cys Ser Gly Val Thr Gly Ala Ala
770 775 780

Asn Val Ala Lys Gly Ala Val Gln Thr Gly Val Asp Thr Ala Lys Thr
785 790 795 800

Val Leu Thr Gly Thr Lys Asp Thr Val Thr Thr Gly Leu Met Gly Ala
805 810 815

Val Asn Val Ala Lys Gly Thr Val Gln Thr Ser Val Asp Thr Thr Lys
820 825 830

Thr Val Leu Thr Gly Thr Lys Asp Thr Val Cys Ser Gly Val Thr Gly
835 840 845

Ala Ala Asn Val Ala Lys Gly Ala Val Gln Gly Gly Leu Asp Thr Thr
850 855 860

Lys Ser Val Leu Thr Gly Thr Lys Asp Thr Val Ser Thr Gly Leu Thr
865 870 875 880

Gly Ala Val Asn Leu Ala Lys Gly Thr Val Gln Thr Gly Val Asp Thr
885 890 895

Ser Lys Thr Val Leu Thr Gly Thr Lys Asp Thr Val Cys Ser Gly Val
900 905 910

Thr Gly Ala Val Asn Val Ala Lys Gly Thr Val Gln Thr Gly Val Asp
915 920 925

Thr Ala Lys Thr Val Leu Ser Gly Ala Lys Asp Ala Val Thr Thr Gly
930 935 940

Val Thr Gly Ala Val Asn Val Ala Lys Gly Thr Val Gln Thr Gly Val
945 950 955 960

Asp Ala Ser Lys Ala Val Leu Met Gly Thr Lys Asp Thr Val Phe Ser
965 970 975

Gly Val Thr Gly Ala Met Ser Met Ala Lys Gly Ala Val Gln Gly Gly
980 985 990

Leu Asp Thr Thr Lys Thr Val Leu Thr Gly Thr Lys Asp Ala Val Ser
995 1000 1005

Ala Gly Leu Met Gly Ser Gly Asn Val Ala Thr Gly Ala Thr His Thr
1010 1015 1020

Gly Leu Ser Thr Phe Gln Asn Trp Leu Pro Ser Thr Pro Ala Thr Ser
1025 1030 1035 1040

Trp Gly Gly Leu Thr Ser Ser Arg Thr Thr Asp Asn Gly Gly Glu Gln
1045 1050 1055

Thr Ala Leu Ser Pro Gln Glu Ala Pro Phe Ser Gly Ile Ser Thr Pro
1060 1065 1070

Pro Asp Val Leu Ser Val Gly Pro Glu Pro Ala Trp Glu Ala Ala Ala
1075 1080 1085

Thr Thr Lys Gly Leu Ala Thr Asp Val Ala Thr Phe Thr Gln Gly Ala
1090 1095 1100

Ala Pro Gly Arg Glu Asp Thr Gly Leu Leu Thr Thr Thr His Gly Pro
1105 1110 1115 1120

Glu Glu Ala Pro Arg Leu Ala Met Leu Gln Asn Glu Leu Glu Gly Leu
1125 1130 1135

Gly Asp Ile Phe His Pro Met Asn Ala Glu Glu Gln Ala Gln Leu Ala
1140 1145 1150

Ala Ser Gln Pro Gly Pro Lys Val Leu Ser Ala Glu Gln Gly Ser Tyr
1155 1160 1165

Phe Val Arg Leu Gly Asp Leu Gly Pro Ser Phe Arg Gln Arg Ala Phe
1170 1175 1180

Glu His Ala Val Ser His Leu Gln His Gly Gln Phe Gln Ala Arg Asp
1185 1190 1195 1200

Thr Leu Ala Gln Leu Gln Asp Cys Phe Arg Leu Ile Glu Lys Ala Gln
1205 1210 1215

Gln Ala Pro Glu Gly Gln Pro Arg Leu Asp Gln Gly Ser Gly Ala Ser
1220 1225 1230

SECRET

Arg Val Cys Gly Leu Leu Arg Gln Leu His Thr Ala Tyr Ser Gly Leu
1250 1255 1260

Val Ser Ser Leu Gln Gly Leu Pro Ala Glu Leu Gln Gln Pro Val Gly
1265 1270 1275 1280

Arg Ala Arg His Ser Leu Cys Glu Leu Tyr Gly Ile Val Ala Ser Ala
1285 1290 1295

Gly Ser Val Glu Glu Leu Pro Ala Glu Arg Leu Val Gln Ser Arg Glu
1300 1305 1310

Gly Val His Gln Ala Trp Gln Gly Leu Glu Gln Leu Leu Glu Gly Leu
1315 1320 1325

Gln His Asn Pro Pro Leu Ser Trp Leu Val Gly Pro Phe Ala Leu Pro
1330 1335 1340

Ala Gly Gly Gln
1345

```
<210> 241
<211> 1403
<212> PRT
<213> Mus musculus
```

```
<400> 241
Met Ser Ala Ser Gly Asp Gly Thr Arg Val Pro Pro Lys Ser Lys Gly
  1             5             10             15
```

Lys Thr Leu Ser Ser Phe Phe Gly Ser Leu Pro Gly Phe Ser Ser Ala
20 25 30

Arg Asn Leu Val Ser His Thr His Ser Ser Thr Ser Thr Lys Asp Leu
35 40 45

Gln Thr Ala Thr Asp Pro Ser Gly Thr Pro Ala Pro Ser Ser Lys Val
50 55 60

Ser Thr Asn Ser Gln Met Ala Gly Asp Ala Ala Gly Leu Leu Gln Pro
65 70 75 80

Ser Glu Gln Thr Ala Gly Asp Lys Asp Met Gly Ser Phe Ser Val Thr
85 90 95

Ser Ser Glu Asp Ala Phe Ser Gly Val Phe Gly Ile Met Asp Ala Ala
100 105 110

Lys Gly Met Val Gln Gly Gly Leu Gly Ala Thr Gln Ser Ala Leu Val
115 120 125

Gly Thr Lys Glu Ala Val Ser Gly Gly Val Met Gly Ala Val Gly Val

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000 1001 1002 1003 1004 1005 1006 1007 1008 1009 1010 1011 1012 1013 1014 1015 1016 1017 1018 1019 1020 1021 1022 1023 1024 1025 1026 1027 1028 1029 1030 1031 1032 1033 1034 1035 1036 1037 1038 1039 1040 1

130					135					140					
Ala 145	Lys	Gly	Leu	Val	Lys 150	Gly	Gly	Leu	Asp	Thr 155	Ser	Lys	Asn	Val	Leu 160
Thr	Asn	Thr	Lys	Asp 165	Thr	Val	Thr	Thr	Gly 170	Val	Met	Gly	Ala	Ala	Asn 175
Met	Ala	Lys	Gly 180	Thr	Val	Gln	Thr	Gly 185	Leu	Asp	Thr	Thr	Lys	Ser	Val 190
Val	Met	Gly 195	Thr	Lys	Asp	Thr	Val 200	Ala	Thr	Gly	Leu	Ala 205	Gly	Ala	Val
Asn	Val 210	Ala	Lys	Gly	Thr	Ile 215	Gln	Gly	Gly	Leu	Asp 220	Thr	Thr	Lys	Ser
Val 225	Val	Met	Gly	Thr	Lys 230	Asp	Thr	Val	Thr	Thr 235	Gly	Leu	Thr	Gly	Ala 240
Ala	Asn	Val	Ala	Lys 245	Gly	Val	Val	Gln	Gly 250	Gly	Leu	Asp	Thr	Thr	Lys 255
Ser	Val	Val 260	Met	Gly	Thr	Lys	Asp 265	Thr	Val	Thr	Thr	Gly	Leu 270	Thr	Gly
Ala	Met 275	Asn	Val	Ala	Lys	Gly	Thr 280	Ala	Gln	Met	Gly	Ile 285	Asp	Thr	Ser
Lys 290	Thr	Val	Leu	Thr	Gly 295	Thr	Lys	Asp	Thr	Val	Cys 300	Ala	Gly	Ala	Thr
Gly 305	Ala	Ile	Asn	Val	Ala 310	Lys	Gly	Ala	Ala	Gln 315	Gly	Gly	Leu	Asp	Thr 320
Thr	Lys	Ser	Val	Leu 325	Ile	Gly	Thr	Lys	Asp 330	Thr	Val	Thr	Thr	Gly 335	Leu
Thr	Gly	Ala	Val 340	Asn	Val	Ala	Lys	Gly 345	Ala	Val	Gln	Gly	Gly 350	Leu	Asp
Thr	Thr 355	Lys	Ser	Val	Val	Met	Gly 360	Thr	Lys	Asp	Thr 365	Val	Thr	Thr	Gly
Leu 370	Thr	Gly	Ala	Met	Asn	Val 375	Ala	Lys	Gly	Thr	Ala 380	Gln	Met	Gly	Leu
Gly 385	Thr	Ser	Lys	Thr	Val 390	Leu	Thr	Gly	Thr	Lys 395	Asp	Thr	Val	Cys	Ala 400
Gly	Leu	Thr	Gly	Ala 405	Ile	Asn	Val	Ala	Lys 410	Gly	Ala	Ala	Gln	Gly 415	Gly
Leu	Asp	Thr 420	Thr	Lys	Ser	Val	Leu	Met 425	Gly	Thr	Lys	Asp	Thr 430	Val	Thr
Thr	Gly	Leu	Thr	Gly	Ala	Val	Asn	Val	Ala	Lys	Gly	Thr	Ile	Gln	Gly

435		440		445
Gly Leu Asp Thr Thr Lys Ser Val Val Met Gly Thr Lys Asp Thr Val				
450		455		460
Thr Thr Gly Leu Thr Gly Ala Val Asn Val Ala Lys Gly Thr Ile Gln				
465		470		475
Gly Gly Leu Asp Thr Thr Lys Ser Val Val Met Gly Thr Lys Asp Thr				
	485		490	495
Val Thr Thr Gly Leu Thr Gly Ala Val Asn Val Ala Lys Gly Ala Ala				
	500		505	510
Gln Gly Gly Leu Asp Thr Thr Lys Ser Val Val Met Gly Thr Lys Asp				
	515		520	525
Thr Val Thr Thr Gly Leu Thr Gly Ala Met Asn Val Ala Lys Gly Thr				
	530		535	540
Ala Gln Met Gly Leu Gly Thr Ser Lys Thr Val Leu Thr Gly Thr Lys				
545		550		555
Asp Thr Val Cys Ala Gly Leu Thr Gly Ala Ile Asn Val Ala Lys Gly				
	565		570	575
Ala Ala Gln Gly Gly Leu Asp Thr Thr Lys Ser Val Leu Met Gly Thr				
	580		585	590
Lys Asp Thr Val Thr Thr Gly Leu Thr Gly Ala Val Asn Val Ala Lys				
	595		600	605
Gly Thr Ile Gln Gly Gly Leu Asp Thr Thr Lys Ser Val Val Met Gly				
	610		615	620
Thr Lys Asp Thr Val Thr Thr Gly Leu Thr Gly Ala Val Asn Val Ala				
625		630		635
Lys Gly Ala Val Gln Gly Gly Leu Asp Thr Thr Lys Ser Val Val Met				
	645		650	655
Gly Thr Lys Asp Thr Val Thr Thr Gly Leu Thr Gly Ala Leu Asn Val				
	660		665	670
Ala Lys Gly Thr Ala Gln Met Gly Ile Asp Thr Ser Lys Thr Val Leu				
	675		680	685
Ile Gly Thr Lys Asp Thr Val Cys Ala Gly Ala Thr Gly Ala Ile Asn				
	690		695	700
Met Ala Lys Gly Ala Ala Gln Gly Gly Leu Asp Thr Thr Lys Ser Val				
705		710		715
Leu Met Gly Thr Lys Asp Thr Val Thr Thr Gly Leu Thr Gly Ala Ile				
	725		730	735
Asn Val Ala Lys Gly Ser Ala Gln Gly Gly Leu Asp Thr Thr Lys Ser				

740	745	750
Val Leu Ile Gly Thr Lys Asp Thr	Val Thr Thr Gly Leu Thr Gly Ala	
755	760	765
Leu Asn Val Ala Lys Gly Thr Val Gln Thr Gly Leu Asp Thr Ser Gln		
770	775	780
Arg Val Leu Thr Gly Thr Lys Asp Asn Val Tyr Ala Gly Val Thr Gly		
785	790	795
Ala Val Asn Val Ala Lys Gly Thr Ile Gln Gly Gly Leu Asp Thr Thr		
805	810	815
Lys Ser Val Val Met Gly Thr Lys Asp Thr Val Thr Thr Gly Leu Thr		
820	825	830
Gly Ala Val Asn Val Ala Lys Gly Ala Val Gln Gly Gly Leu Asp Thr		
835	840	845
Thr Lys Ser Val Val Met Gly Thr Lys Asp Thr Val Thr Thr Gly Leu		
850	855	860
Thr Gly Ala Met Asn Val Ala Lys Gly Thr Ala Gln Met Gly Ile Asp		
865	870	875
Thr Ser Lys Thr Val Leu Thr Gly Thr Lys Asp Thr Val Cys Ala Gly		
885	890	895
Leu Thr Gly Ala Ile Asn Val Ala Lys Gly Ala Thr Gln Gly Gly Leu		
900	905	910
Asp Thr Thr Lys Ser Val Leu Met Gly Thr Lys Asp Thr Val Thr Thr		
915	920	925
Gly Leu Thr Gly Ala Ile Asn Val Ala Lys Gly Ala Ala Gln Gly Gly		
930	935	940
Leu Asp Thr Thr Lys Ser Val Leu Leu Gly Thr Lys Asp Thr Val Thr		
945	950	955
Thr Gly Leu Thr Gly Ala Ala Asn Val Ala Lys Glu Thr Val Gln Met		
965	970	975
Gly Leu Asp Thr Ser Lys Asn Ile Leu Met Asp Thr Lys Asp Ser Ile		
980	985	990
Cys Ala Gly Ala Thr Gly Ala Ile Thr Val Val Lys Gly Ala Ala Gln		
995	1000	1005
Gly Gly Leu Asp Thr Ser Asn Ala Ala Leu Thr Gly Thr Met Asp Thr		
1010	1015	1020
Ala Lys Gly Thr Val Gln Thr Ser Leu Asp Thr Ser Lys His Met Leu		
1025	1030	1035
Ile Gly Met Lys Asp Thr Val Cys Ala Gly Val Thr Ser Ala Met Asn		

19-00000 19-00000

				1045					1050					1055	
Met	Ala	Lys	Gly	Ile	His	Lys	Asn	Thr	Asp	Thr	Thr	Arg	Asp	Thr	Gln
			1060						1065					1070	
Ser	Ser	Val	Leu	Ala	His	Ser	Gly	Asn	Val	Ala	Thr	Asn	Ala	Ile	His
		1075					1080					1085			
Thr	Gly	Val	His	Thr	Val	Pro	Ser	Ser	Leu	Ser	Gly	Ser	His	Ser	Ile
	1090					1095					1100				
Ile	Cys	His	Glu	Pro	Ser	Ile	Tyr	Arg	Ala	Thr	Asn	His	Gly	Val	Gly
1105					1110					1115					1120
His	Ala	Ile	Leu	Thr	Ser	Thr	Glu	Ser	Leu	Cys	Cys	Glu	Thr	Ser	Ser
			1125						1130					1135	
Phe	Ser	Asp	Lys	Tyr	Gly	Leu	Gly	His	Val	Thr	Glu	Pro	Arg	Ala	Asp
		1140					1145						1150		
Thr	Lys	Thr	Leu	Val	Ser	Gly	Met	Ala	Ser	Ser	Ala	Cys	Ala	Ala	Thr
	1155					1160						1165			
Arg	Ser	Val	Glu	Glu	Cys	Gly	Gln	Leu	Ala	Ala	Thr	Gly	Phe	Ala	Ala
	1170					1175					1180				
Leu	Pro	Asp	Glu	Leu	Lys	Gly	Leu	Gly	Asp	Ile	Phe	Gln	Pro	Met	Thr
1185				1190					1195						1200
Thr	Glu	Glu	Gln	Ala	Gln	Leu	Ala	Val	Ser	Glu	Ser	Gly	Pro	Arg	Val
			1205					1210					1215		
Leu	Ser	Ala	Asp	Arg	Gly	Ser	Tyr	Tyr	Ile	Arg	Leu	Gly	Asp	Leu	Ala
		1220					1225					1230			
Pro	Ser	Phe	Arg	Gln	Arg	Ala	Phe	Glu	His	Ala	Leu	Ser	His	Ile	Gln
	1235						1240					1245			
His	Asn	Gln	Phe	Glu	Ala	Arg	Ala	Ala	Val	Ala	Gln	Leu	Gln	Glu	Ala
	1250				1255						1260				
Phe	Gln	Met	Thr	Asp	Met	Thr	Met	Glu	Ala	Ala	Cys	Gly	Lys	Leu	Cys
1265				1270				1275						1280	
Ser	Asp	Gln	Ser	Leu	Asn	Thr	Met	Val	Glu	Ala	Val	Gly	Ser	His	Glu
			1285					1290					1295		
Met	Arg	Ala	Ser	Val	Ala	Gln	Asp	Arg	Leu	Cys	Thr	Leu	Ala	His	Gln
		1300					1305					1310			
Leu	His	Ala	Ala	Tyr	Ser	Ser	Leu	Val	Thr	Ser	Leu	Gln	Gly	Leu	Pro
	1315					1320					1325				
Glu	Val	Gln	Gln	Gln	Ala	Gly	Gln	Ala	Arg	His	Ser	Leu	Cys	Lys	Leu
	1330				1335					1340					
Tyr	Gly	Leu	Val	Ser	Ser	Glu	Ala	Gly	Ser	Glu	Leu	Gln	Thr	Glu	Gln

1345 1350 1355 1360
 Leu Ala Gln Ser Ser Ala Gly Val Val Glu Ala Trp Gln Gly Leu Glu
 1365 1370 1375
 Val Leu Leu Glu Lys Leu Gln Gln Asn Pro Pro Leu Ser Trp Leu Val
 1380 1385 1390
 Gly Pro Phe Thr Ser Met Pro Cys Gly Gln Leu
 1395 1400

<210> 242
 <211> 28
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: chemically
 synthesized

<400> 242
 gtaaattgga agagtttggt caagggaa 28

<210> 243
 <211> 29
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: chemically
 synthesized

<400> 243
 cttggaaatc catctttcat taagtgagc 29

<210> 244
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: chemically
 synthesized

<400> 244
 ctatctgcca attttcattg tggacag 27

<210> 245
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: chemically synthesized

<400> 245

ttcgaattaa ggttccaagg ctatgag

27

<210> 246

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: chemically synthesized

<400> 246

cggggaagact cgccagcac

19

<210> 247

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: chemically synthesized

<400> 247

aaagcctttt atgggtcttt gaatttattg

30

<210> 248

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: chemically synthesized

<400> 248

tgctgagggt gcatttatgt ttcag

25

<210> 249

<211> 26

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: chemically synthesized

<400> 249

ccacacgtgg ataatacaaga gttgac

26

<210> 250
 <211> 19
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: chemically synthesized

<400> 250
 gcggcgcca tgggagata

19

<210> 251
 <211> 26
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: chemically synthesized

<400> 251
 aggaagggga agcgctctca gtattc

26

<210> 252
 <211> 19
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: chemically synthesized

<400> 252
 gcggcgcca tgggagata

19

<210> 253
 <211> 26
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: chemically synthesized

<400> 253
 aggaagggga agcgctctca gtattc

26

<210> 254
 <211> 24
 <212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: chemically synthesized

<400> 254

aqcacqact tccccagaqc tatic

24

<210> 255

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: chemically synthesized

<400> 255

cctatggctg aaggcggagg t

21

<210> 256

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: chemically synthesized

<400> 256

ctgggtctcc cctccac

18

<210> 257

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: chemically synthesized

<400> 257

gtttattctg agcaccggga a

21

<210> 258

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: chemically synthesized

<400> 258
aggcctgcag gtgggtgtc 19

<210> 259
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: chemically
synthesized

<400> 259
ctgcaggctc ctacagctac tgcc 24

<210> 260
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: chemically
synthesized

<400> 260
tcctgagggtg tggatgaata ct 22

<210> 261
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: chemically
synthesized

<400> 261
catcatctac aatggctacc ccagtga 27

<210> 262
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: chemically
synthesized

<400> 262
ccatcttcag tggtgacttc at 22

<210> 263
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: chemically synthesized

<400> 263
 gaaacagtcg gggaaacact 20

<210> 264
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: chemically synthesized

<400> 264
 tggtaagaa gacacaaaac actctca 27

<210> 265
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: chemically synthesized

<400> 265
 aaaccaaagg ccagaattt 20

<210> 266
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: chemically synthesized

<400> 266
 ggggaaatga cgctgataat at 22

<210> 267
 <211> 26
 <212> DNA
 <213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: chemically synthesized

<400> 267
cccctatata tgacctgact gccatg 26

<210> 268
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: chemically synthesized

<400> 268
cccaaatagc agtaggcact tt 22

<210> 269
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: chemically synthesized

<400> 269
gaaacagtcg gggaaacact 20

<210> 270
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: chemically synthesized

<400> 270
tggtaagaa gacacaaaac actctca 27

<210> 271
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: chemically synthesized

<400> 271

aaaccaaagg cccagaattt

20

<210> 272

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: chemically synthesized

<400> 272

tcctgaggtg tggatgaata ct

22

<210> 273

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: chemically synthesized

<400> 273

catcatctac aatggctacc ccagtga

27

<210> 274

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: chemically synthesized

<400> 274

ccatcttcag tggtgacttc at

22

<210> 275

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: chemically synthesized

<400> 275

ggggaaatga cgctgataat at

22

<210> 276

<211> 26

<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: chemically
synthesized

<400> 276
cccctatata tgacctgact gccatg 26

<210> 277
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: chemically
synthesized

<400> 277
cccaaatagc agtaggcact tt 22

<210> 278
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: chemically
synthesized

<400> 278
tcactgctat gtgcacatca a 21

<210> 279
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: chemically
synthesized

<400> 279
catcacagat gccaacactc atcgg 25

<210> 280
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: chemically

<210> 285
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: chemically synthesized

<400> 285
 cagatcctgg cattctctca gaagctg

27

<210> 286
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: chemically synthesized

<400> 286
 atgctcactg tctgttcctt gt

22

<210> 287
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: chemically synthesized

<400> 287
 ctttccactg ctctgcaaag

20

<210> 288
 <211> 26
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: chemically synthesized

<400> 288
 aacccagctg tcacccagta caggtg

26

<210> 289
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: chemically synthesized

<400> 289
gtctgtaca cctctccaga tg 22

<210> 290
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: chemically synthesized

<400> 290
accaatggat ccactctat ct 22

<210> 291
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: chemically synthesized

<400> 291
ctgactcaa ccaggacagc aagatg 26

<210> 292
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: chemically synthesized

<400> 292
attctcagca ggctcttgat ct 22

<210> 293
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: chemically synthesized


```
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: chemically
      synthesized
```

<400> 298
atttatattca qcccaqtttg 20

```
<210> 299
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: chemically
      synthesized
```

<400> 299
gacctgatag acaaccctgt ga 22

```
<210> 300
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: chemically
        synthesized
```

<400> 300
acggcaagtc tectgetcag attttg 26

```
<210> 301
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: chemically
        synthesized
```

<400> 301
atcacattcc tctggatttg aa 22

```
<210> 302
<211> 22
<212> DNA
<213> Artificial Sequence
<220>
```

<223> Description of Artificial Sequence: chemically synthesized

<400> 302
ggtaggtact gtcggtgaat tg 22

<210> 303
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: chemically synthesized

<400> 303
cttcatcaaa tgaaaataat ttcgagcaag 30

<210> 304
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: chemically synthesized

<400> 304
gcaatcgag cttcttcag 19

<210> 305
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: chemically synthesized

<400> 305
agggactaca gcctccagat ac 22

<210> 306
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: chemically synthesized

<400> 306
atggcccata cacgtgttct gtccag 26

<210> 307
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: chemically
synthesized

<400> 307
cattgttctg ggtgtatggt ga 22

<210> 308
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: chemically
synthesized

<400> 308
gctggtacct tgtgttgaca ct 22

<210> 309
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: chemically
synthesized

<400> 309
ccagcatatt ctacctgaag aatgcc 27

<210> 310
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: chemically
synthesized

<400> 310
aaagcctttt atgggtcttt ga 22

<210> 311
<211> 22
<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: chemically synthesized

<400> 311

tctcttqcaq attccaqaga qt

22

<210> 312

<211> 26

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: chemically synthesized

<400> 312

tgtgccttcc agaacatctc ttgtgg

26

<210> 313

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: chemically synthesized

<400> 313

tgaacacaga agccaagtag tg

22

<210> 314

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: chemically synthesized

<400> 314

ctactactgg tggctgcgaa t

21

<210> 315

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: chemically synthesized

<400> 315
cagatcatga cccacttgcc tggag 25

<210> 316
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: chemically
synthesized

<400> 316
actcttcagc ggatgtagat ca 22

<210> 317
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: chemically
synthesized

<400> 317
acctactcgg ccactaccta ga 22

<210> 318
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: chemically
synthesized

<400> 318
cacctatca agaagtgctt ttaaattca 29

<210> 319
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: chemically
synthesized

<400> 319
cagtgcattt ccagctacag ta 22

(Musical notation)

```
<210> 320
<211> 22
<212> DNA
<213> Artificial Sequence
```

```
<220>
<223> Description of Artificial Sequence: chemically
        synthesized
```

<400> 320
cacggaacgt atcttcaaga aa 22

```
<210> 321
<211> 26
<212> DNA
<213> Artificial Sequence
```

<220>
<223> Description of Artificial Sequence: chemically synthesized

<400> 321
ctgcacgtgt gaccctaaact ggactg 26

```
<210> 322
<211> 22
<212> DNA
<213> Artificial Sequence
```

<220>
<223> Description of Artificial Sequence: chemically synthesized

<400> 322
gccacagtc acagaacata tt 22

```
<210> 323
<211> 22
<212> DNA
<213> Artificial Sequence
```

<220>
<223> Description of Artificial Sequence: chemically synthesized

<400> 323
cagagaagca gacgagttca ct 22

```
<210> 324
<211> 26
<212> DNA
<213> Artificial Sequence
```

<220>
<223> Description of Artificial Sequence: chemically
synthesized

<400> 324
caaggacaga atttaccct aaggca

26

<210> 325
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: chemically
synthesized

<400> 325
gttgctgggt cacaactcc ta

22

<210> 326
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: chemically
synthesized

<400> 326
ggcttcata attaccatca ca

22

<210> 327
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: chemically
synthesized

<400> 327
cctttccctt tgactactct gcgagtg

27

<210> 328
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: chemically
synthesized

<400> 328

gcacatgaaa tcaatgaacc a 21

<210> 329
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: chemically synthesized

<400> 329
ggcttcacata attaccatca ca 22

<210> 330
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: chemically synthesized

<400> 330
cctttccctt tgactactct gcgagtg 27

<210> 331
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: chemically synthesized

<400> 331
gcacatgaaa tcaatgaacc a 21

<210> 332
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: chemically synthesized

<400> 332
acaacgcctt gactcttctt ct 22

<210> 333
<211> 26

<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: chemically synthesized

<400> 333
aagacctcca agcctcaggg actctg 26

```
<210> 334
<211> 22
<212> DNA
<213> Artificial Sequence
```

```
<220>
<223> Description of Artificial Sequence: chemically
      synthesized
```

```
<400> 334
acaagaagaa acaccccttg at
```

```
<210> 335
<211> 32
<212> PRT
<213> Homo sapiens
```

<400> 335
Cys Asp Ser Gly Pro Cys Lys Asn Ser Gly Phe Cys Ser Glu Arg Trp
1 5 10 15
Gly Ser Phe Ser Cys Asp Cys Pro Val Gly Phe Gly Gly Lys Asp Cys
20 25 30

```
<210> 336
<211> 135
<212> PRT
<213> Homo sapiens
```

```

<400> 336
Phe Arg Thr Arg Ala Thr Gln Gly Val Leu Met Gln Val Gln Ala Gly
 1                5                10                15

Pro His Ser Thr Leu Leu Cys Gln Leu Asp Arg Gly Leu Leu Ser Val
      20                25                30

Thr Val Thr Arg Gly Ser Gly Arg Ala Ser His Leu Leu Leu Asp Gln
      35                40                45

Val Thr Val Ser Asp Gly Arg Trp His Asp Leu Arg Leu Glu Leu Gln
 50                55                60

```

Glu Glu Pro Gly Gly Arg Arg Gly His His Val Leu Met Val Ser Leu
65 70 75 80

Asp Phe Ser Leu Phe Gln Asp Thr Met Ala Val Gly Ser Glu Leu Gln
85 90 95

Gly Leu Lys Val Lys Gln Leu His Val Gly Gly Leu Pro Pro Gly Ser
100 105 110

Ala Glu Glu Ala Pro Gln Gly Leu Val Gly Cys Ile Gln Gly Val Trp
115 120 125

Leu Gly Ser Thr Pro Ser Gly
130 135

<210> 337

<211> 32

<212> PRT

<213> Homo sapiens

<400> 337

Cys Ala Ser Gly Pro Cys Pro Pro His Ala Asp Cys Arg Asp Leu Trp
1 5 10 15

Gln Thr Phe Ser Cys Thr Cys Gln Pro Gly Tyr Tyr Gly Pro Gly Cys
20 25 30

<210> 338

<211> 35

<212> PRT

<213> Homo sapiens

<400> 338

Cys Leu Leu Asn Pro Cys Gln Asn Gln Gly Ser Cys Arg His Leu Pro
1 5 10 15

Gly Ala Pro His Gly Tyr Thr Cys Asp Cys Val Gly Gly Tyr Phe Gly
20 25 30

His His Cys
35

<210> 339

<211> 58

<212> PRT

<213> Homo sapiens

<400> 339

Tyr Asp Ala Cys Pro Lys Ser Leu Arg Ser Gly Val Trp Trp Pro Gln
1 5 10 15

Thr Lys Phe Gly Val Leu Ala Thr Val Pro Cys Pro Arg Gly Ala Leu
20 25 30

Gly Ala Ala Val Arg Leu Cys Asp Glu Ala Gln Gly Trp Leu Glu Pro
35 40 45

Asp Leu Phe Asn Cys Thr Ser Pro Ala Phe
50 55

<210> 340
<211> 54
<212> PRT
<213> Homo sapiens

<400> 340
Ser Lys Ala Ile Cys Val Gln Trp Asp Pro Pro Gly Leu Ala Glu Gln
1 5 10 15

His Gly Val Trp Thr Ala Arg Asp Cys Glu Leu Val His Arg Asn Gly
20 25 30

Ser His Ala Arg Cys Arg Cys Ser Arg Thr Gly Thr Phe Gly Val Leu
35 40 45

Met Asp Ala Ser Pro Arg
50

<210> 341
<211> 271
<212> PRT
<213> Homo sapiens

<400> 341
Leu Glu Leu Leu Ala Val Phe Thr His Val Val Val Ala Val Ser Val
1 5 10 15

Ala Ala Leu Val Leu Thr Ala Ala Ile Leu Leu Ser Leu Arg Ser Leu
20 25 30

Lys Ser Asn Val Arg Gly Ile His Ala Asn Val Ala Ala Ala Leu Gly
35 40 45

Val Ala Glu Leu Leu Phe Leu Leu Gly Ile His Arg Thr His Asn Gln
50 55 60

Val Gln Asp Gln Gly Gln Gly Thr Cys Val Leu Met Thr Leu Leu Ala
65 70 75 80

Gln Glu Ala Trp Gly Gln Asn Ser Gly Ser Glu Leu Val Cys Thr Ala
85 90 95

Val Ala Ile Leu Leu His Tyr Phe Phe Leu Ser Thr Phe Ala Trp Leu
100 105 110

Phe Val Gln Gly Leu His Leu Tyr Arg Met Gln Val Glu Pro Arg Asn
115 120 125

Val Asp Arg Gly Ala Met Arg Phe Tyr His Ala Leu Gly Trp Gly Val
130 135 140

Pro Ala Val Leu Leu Gly Leu Ala Val Gly Leu Asp Pro Glu Gly Tyr
145 150 155 160

Glv Asn Pro Asp Phe Cys Trp Ile Ser Val His Glu Pro Leu Ile Trp
165 170 175

Ser Phe Ala Gly Pro Val Val Leu Val Ile Val Met Asn Gly Thr Met
180 185 190

Phe Leu Leu Ala Ala Arg Thr Ser Cys Ser Thr Gly Gln Arg Glu Ala
195 200 205

Lys Lys Thr Ser Ala Leu Arg Thr Leu Arg Ser Ser Phe Leu Leu Leu
210 215 220

Leu Leu Val Ser Ala Ser Trp Leu Phe Gly Leu Leu Ala Val Asn His
225 230 235 240

Ser Ile Leu Ala Phe His Tyr Leu His Ala Gly Leu Cys Gly Leu Gln
245 250 255

Gly Leu Ala Val Leu Leu Leu Phe Cys Val Leu Asn Ala Asp Ala
260 265 270

<210> 342
<211> 311
<212> PRT
<213> Homo sapiens

<400> 342
Leu Gly Leu Ile His Phe Gly Phe Val Val Thr Tyr Leu Ser Glu Pro
1 5 10 15

Leu Val Arg Gly Tyr Thr Thr Ala Ala Ala Val Gln Val Phe Val Ser
20 25 30

Gln Leu Lys Tyr Val Phe Gly Leu His Leu Ser Ser His Ser Gly Pro
35 40 45

Leu Ser Leu Ile Tyr Thr Val Leu Glu Val Cys Trp Lys Leu Pro Gln
50 55 60

Ser Lys Val Gly Thr Val Val Thr Ala Ala Val Ala Gly Val Val Leu
65 70 75 80

Val Val Val Lys Leu Leu Asn Asp Lys Leu Gln Gln Gln Leu Pro Met
85 90 95

Pro Ile Pro Gly Glu Leu Leu Thr Leu Ile Gly Ala Thr Gly Ile Ser
100 105 110

Tyr Gly Met Gly Leu Lys His Arg Phe Glu Val Asp Val Val Gly Asn
 115 120 125

Ile Pro Ala Gly Leu Val Pro Pro Val Ala Pro Asn Thr Gln Leu Phe
 130 135 140

Ser Lys Leu Val Gly Ser Ala Phe Thr Ile Ala Val Val Gly Phe Ala
 145 150 155 160

Ile Ala Ile Ser Leu Gly Lys Ile Phe Ala Leu Arg His Gly Tyr Arg
 165 170 175

Val Asp Ser Asn Gln Glu Leu Val Ala Leu Gly Leu Ser Asn Leu Ile
 180 185 190

Gly Gly Ile Phe Gln Cys Phe Pro Val Ser Cys Ser Met Ser Arg Ser
 195 200 205

Leu Val Gln Glu Ser Thr Gly Gly Asn Ser Gln Val Ala Gly Ala Ile
 210 215 220

Ser Ser Leu Phe Ile Leu Leu Ile Ile Val Lys Leu Gly Glu Leu Phe
 225 230 235 240

His Asp Leu Pro Lys Ala Val Leu Ala Ala Ile Ile Ile Val Asn Leu
 245 250 255

Lys Gly Met Leu Arg Gln Leu Ser Asp Met Arg Ser Leu Trp Lys Ala
 260 265 270

Asn Arg Ala Asp Leu Leu Ile Trp Leu Val Thr Phe Thr Ala Thr Ile
 275 280 285

Leu Leu Asn Leu Asp Leu Gly Leu Val Val Ala Val Ile Phe Ser Leu
 290 295 300

Leu Leu Val Val Val Arg Thr
 305 310

<210> 343
 <211> 189
 <212> PRT
 <213> Homo sapiens

<400> 343
 Tyr Ser Glu Ala Lys Glu Val Arg Gly Val Lys Val Phe Arg Ser Ser
 1 5 10 15

Ala Thr Val Tyr Phe Ala Asn Ala Glu Phe Tyr Ser Asp Ala Leu Lys
 20 25 30

Gln Arg Cys Gly Val Asp Val Asp Phe Leu Ile Ser Gln Lys Lys Lys
 35 40 45

Leu Leu Lys Lys Gln Glu Gln Leu Lys Leu Lys Gln Leu Gln Lys Glu

SECRET

	50					55					60					
Glu 65	Lys	Leu	Arg	Lys	Gln	Ala	Gly	Pro	Leu	Leu	Ser	Ala	Cys	Leu	Ala	80
					70						75					
Pro	Gln	Gln	Val	Ser	Ser	Gly	Asp	Lys	Met	Glu	Asp	Ala	Thr	Ala	Asn	
				85					90					95		
Gly	Gln	Glu	Asp	Ser	Lys	Ala	Pro	Asp	Gly	Ser	Thr	Leu	Lys	Ala	Leu	
			100					105					110			
Gly	Leu	Pro	Gln	Pro	Asp	Phe	His	Ser	Leu	Ile	Leu	Asp	Leu	Gly	Ala	
		115					120					125				
Leu	Ser	Phe	Val	Asp	Thr	Val	Cys	Leu	Lys	Ser	Leu	Lys	Asn	Ile	Phe	
	130					135					140					
His	Asp	Phe	Arg	Glu	Ile	Glu	Val	Glu	Val	Tyr	Met	Ala	Ala	Cys	His	
145					150					155					160	
Ser	Pro	Val	Val	Ser	Gln	Leu	Glu	Ala	Gly	His	Phe	Phe	Asp	Ala	Ser	
				165					170					175		
Ile	Thr	Lys	Lys	His	Leu	Phe	Ala	Ser	Val	His	Asp	Ala				
		180						185								

```
<210> 344
<211> 42
<212> PRT
<213> Homo sapiens
```

<400> 344
Leu Glu Glu Phe Val Gln Gly Asn Leu Glu Arg Glu Cys Leu Glu Glu
1 5 10 15
Lys Cys Ser Phe Glu Glu Ala Arg Glu Val Phe Glu Asn Thr Glu Arg
20 25 30
Thr Thr Glu Phe Trp Lys Gln Tyr Val Asp
35 40

```
<210> 345
<211> 32
<212> PRT
<213> Homo sapiens
```

<400> 345
Cys Glu Ser Asn Pro Cys Leu Asn Gly Gly Ser Cys Lys Asp Asp Ile
1 5 10 15
Asn Ser Tyr Glu Cys Trp Cys Pro Phe Gly Phe Glu Gly Lys Asn Cys
20 25 30

<210> 346
 <211> 50
 <212> PRT
 <213> Homo sapiens

<400> 346
 Glu Asn Thr Glu Arg Thr Thr Glu Phe Trp Lys Gln Tyr Val Asp Gly
 1 5 10 15
 Asp Gln Cys Glu Ser Asn Pro Cys Leu Asn Gly Gly Ser Cys Lys Asp
 20 25 30
 Asp Ile Asn Ser Tyr Glu Cys Trp Cys Pro Phe Gly Phe Glu Gly Lys
 35 40 45
 Asn Cys
 50

<210> 347
 <211> 228
 <212> PRT
 <213> Homo sapiens

<400> 347
 Val Val Gly Gly Glu Asp Ala Lys Pro Gly Gln Phe Pro Trp Gln Val
 1 5 10 15
 Val Leu Asn Gly Lys Val Asp Ala Phe Cys Gly Gly Ser Ile Val Asn
 20 25 30
 Glu Lys Trp Ile Val Thr Ala Ala His Cys Val Glu Thr Gly Val Lys
 35 40 45
 Ile Thr Val Val Ala Gly Glu His Asn Ile Glu Glu Thr Glu His Thr
 50 55 60
 Glu Gln Lys Arg Asn Val Ile Arg Ile Ile Pro His His Asn Tyr Asn
 65 70 75 80
 Ala Ala Ile Asn Lys Tyr Asn His Asp Ile Ala Leu Leu Glu Leu Asp
 85 90 95
 Glu Pro Leu Val Leu Asn Ser Tyr Val Thr Pro Ile Cys Ile Ala Asp
 100 105 110
 Lys Glu Tyr Thr Asn Ile Phe Leu Lys Phe Gly Ser Gly Tyr Val Ser
 115 120 125
 Gly Trp Gly Arg Val Phe His Lys Gly Arg Ser Ala Leu Val Leu Gln
 130 135 140
 Tyr Leu Arg Val Pro Leu Val Asp Arg Ala Thr Cys Leu Arg Ser Thr
 145 150 155 160

Lys Phe Thr Ile Tyr Asn Asn Met Phe Cys Ala Gly Phe His Glu Gly
 165 170 175
 Gly Arg Asp Ser Cys Gln Gly Asp Ser Gly Gly Pro His Val Thr Glu
 180 185 190
 Val Glu Gly Thr Ser Phe Leu Thr Gly Ile Ile Ser Trp Gly Glu Glu
 195 200 205
 Cys Ala Met Lys Gly Lys Tyr Glv Ile Trp Thr Lys Val Ser Arg Trp
 210 215 220
 Val Asn Trp Ile
 225

<210> 348
 <211> 154
 <212> PRT
 <213> Homo sapiens

<400> 348
 Trp Cys Tyr Glu Val Gln Ala Glu Ser Ser Asn Tyr Pro Cys Leu Val
 1 5 10 15
 Pro Val Lys Trp Gly Gly Asn Cys Gln Lys Asp Arg Gln Ser Pro Ile
 20 25 30
 Asn Ile Val Thr Thr Lys Ala Lys Val Asp Lys Lys Leu Gly Arg Phe
 35 40 45
 Phe Phe Ser Gly Tyr Asp Lys Lys Gln Thr Trp Thr Val Gln Asn Asn
 50 55 60
 Gly His Ser Val Met Met Leu Leu Glu Asn Lys Ala Ser Ile Ser Gly
 65 70 75 80
 Gly Gly Leu Pro Ala Pro Tyr Gln Ala Lys Gln Leu His Leu His Trp
 85 90 95
 Ser Asp Leu Pro Tyr Lys Gly Ser Glu His Ser Leu Asp Gly Glu His
 100 105 110
 Phe Ala Met Glu Met His Ile Val His Glu Lys Glu Lys Gly Thr Ser
 115 120 125
 Arg Asn Val Lys Glu Ala Gln Asp Pro Glu Asp Glu Ile Ala Val Leu
 130 135 140
 Ala Phe Leu Val Glu Ile Gly Arg Met Asn
 145 150

<210> 349
 <211> 115
 <212> PRT
 <213> Homo sapiens

<400> 349

Gln Ala Gly Thr Gln Val Asn Glu Gly Phe Gln Pro Leu Val Glu Ala
1 5 10 15

Leu Ser Asn Ile Pro Lys Pro Glu Met Ser Thr Thr Met Ala Glu Ser
20 25 30

Ser Leu Leu Asp Leu Leu Pro Lys Glu Glu Lys Leu Arg His Tyr Phe
35 40 45

Arg Tyr Leu Gly Ser Leu Thr Thr Pro Thr Cys Asp Glu Lys Val Val
50 55 60

Trp	Thr	Val	Phe	Arg	Glu	Pro	Ile	Gln	Leu	His	Arg	Glu	Gln	Ile	Leu
65					70					75					80

Ala Phe Ser Gln Lys Leu Tyr Tyr Asp Lys Glu Gln Thr Val Ser Met
85 90 95

Lys Asp Asn Val Arg Pro Leu Gln Gln Leu Gly Gln Arg Thr Val Ile
100 105 110

Lys Ser Gly,
115

<210> 350

<211> 52

<212> PRT

<213> Homo sapiens

<400> 350

Gly Ser Asp Ala Ile Leu Ser Cys Ala Trp Thr Gly Asn Pro Ser Leu
1 5 10 15

Thr Ile Val Trp Met Lys Arg Gly Ser Gly Val Val Leu Ser Asn Glu
20 25 30

Lys Thr Leu Thr Leu Lys Ser Val Arg Gln Glu Asp Ala Gly Lys Tyr
35 40 45

Val Cys Arg Ala
50

<210> 351

<211> 146

<212> PRT

<213> Homo sapiens

<400> 351

Asp Met Asn Gln Pro Leu Ala His Tyr Phe Ile Ser Ser Ser His Asn
1 5 10 15

Thr Tyr Leu Thr Asp Ser Gln Ile Gly Gly Pro Ser Ser Thr Glu Ala
20 25 30

Tyr Val Arg Ala Phe Ala Gln Gly Cys Arg Cys Val Glu Leu Asp Cys
 35 40 45

Trp Glu Gly Pro Gly Gly Glu Pro Val Ile Tyr His Gly His Thr Leu
 50 55 60

Thr Ser Lys Ile Leu Phe Arg Asp Val Val Gln Ala Val Arg Asp His
 65 70 75 80

Ala Phe Thr Val Ser Pro Tyr Pro Val Ile Leu Ser Leu Glu Asn His
 85 90 95

Cys Gly Leu Glu Gln Gln Ala Ala Met Ala Arg His Leu Cys Thr Ile
 100 105 110

Leu Gly Asp Met Leu Val Thr Gln Ala Leu Asp Ser Pro Asn Pro Glu
 115 120 125

Glu Leu Pro Ser Pro Glu Gln Leu Lys Gly Arg Val Leu Val Lys Gly
 130 135 140

Lys Lys
 145

<210> 352
 <211> 80
 <212> PRT
 <213> Homo sapiens

<400> 352
 Arg Leu Leu Lys Ala Trp Gly Asn Ser Phe Val Arg His Asn Ala Arg
 1 5 10 15

Gln Leu Thr Arg Val Tyr Pro Leu Gly Leu Arg Met Asn Ser Ala Asn
 20 25 30

Tyr Ser Pro Gln Glu Met Trp Asn Ser Gly Cys Gln Leu Val Ala Leu
 35 40 45

Asn Phe Gln Thr Pro Gly Tyr Glu Met Asp Leu Asn Ala Gly Arg Phe
 50 55 60

Leu Val Asn Gly Gln Cys Gly Tyr Val Leu Lys Pro Ala Cys Leu Arg
 65 70 75 80

<210> 353
 <211> 91
 <212> PRT
 <213> Homo sapiens

<400> 353

Leu Ser Ile Gln Val Leu Thr Ala Gln Gln Leu Pro Lys Leu Asn Ala
 1 5 10 15
 Glu Lys Pro His Ser Ile Val Asp Pro Leu Val Arg Ile Glu Ile His
 20 25 30
 Gly Val Pro Ala Asp Cys Ala Arg Gln Glu Thr Asp Tyr Val Leu Asn
 35 40 45
 Asn Gly Phe Asn Pro Arg Trp Gly Gln Thr Leu Gln Phe Gln Leu Arg
 50 55 60
 Ala Pro Glu Leu Ala Leu Val Arg Phe Val Val Glu Asp Tyr Asp Ala
 65 70 75 80
 Thr Ser Pro Asn Asp Phe Val Gly Gln Phe Thr
 85 90

<210> 354
 <211> 294
 <212> PRT
 <213> Homo sapiens

<400> 354
 Leu Asn Asp Gly His Phe Met Pro Val Leu Gly Phe Gly Thr Tyr Ala
 1 5 10 15
 Pro Ala Glu Val Pro Lys Ser Lys Ala Leu Glu Ala Val Lys Leu Ala
 20 25 30
 Ile Glu Ala Gly Phe His His Ile Asp Ser Ala His Val Tyr Asn Asn
 35 40 45
 Glu Glu Gln Val Gly Leu Ala Ile Arg Ser Lys Ile Ala Asp Gly Ser
 50 55 60
 Val Lys Arg Glu Asp Ile Phe Tyr Thr Ser Lys Leu Trp Ser Asn Ser
 65 70 75 80
 His Arg Pro Glu Leu Val Arg Pro Ala Leu Glu Arg Ser Leu Lys Asn
 85 90 95
 Leu Gln Leu Asp Tyr Val Asp Leu Tyr Leu Ile His Phe Pro Val Ser
 100 105 110
 Val Lys Pro Gly Glu Glu Val Ile Pro Lys Asp Glu Asn Gly Lys Ile
 115 120 125
 Leu Phe Asp Thr Val Asp Leu Cys Ala Thr Trp Lys Ala Leu Glu Lys
 130 135 140
 Cys Arg Asp Ala Gly Leu Thr Arg Ser Ile Arg Val Ser Ser Phe Asn
 145 150 155 160
 His Lys Leu Leu Glu Leu Ile Leu Asn Lys Pro Gly Leu Arg Tyr Lys
 165 170 175

L O R E N Z I

```
<210> 355
<211> 38
<212> PRT
<213> Homo sapiens
```

```

<400> 355
Met Lys Glu His Ser Lys Thr Phe Ser Tyr Ala Phe Asp Phe Leu Asp
  1             5             10             15

Leu Lys Arg Lys Lys Ala Ile Trp Ala Ile Tyr Ala Val Cys Arg Ile
      20             25             30

Ile Asp Asp Ser Ile Asp
      35

```

```
<210> 356
<211> 194
<212> PRT
<213> Homo sapiens
```

<400> 356
Asp Ala Ala Ile Met Asn Ala Leu Ser Asn Thr Leu Asn Thr Tyr Ser
1 5 10 15
Ile Pro Lys Lys Pro Phe Glu Ser Leu Ile Gln Tyr Val Lys Glu Asp
20 25 30
Leu Val Leu Lys Glu Met Lys Thr Asp Ser Asp Leu Tyr Glu Tyr Cys
35 40 45

Tyr Gly Val Val Gly Thr Val Gly Glu Leu Leu Thr Pro Ile Leu Thr
50 55 60

Ser Ser Asn Glu Asn Asn Phe Glu Gln Ala Glu Glu Ala Ala Ile Ala
65 70 75 80

Leu Gly Lys Ala Met Gln Ile Thr Asn Ile Leu Arg Asp Val Gly Glu
85 90 95

Asp Phe Gln Asn Glv Arg Ile Tyr Leu Ser Val Glu Lys Leu Ala Gln
100 105 110

Tyr Arg Val Asn Leu His Ser Ile Tyr Tyr Glu Gly Val Ser Pro Asn
115 120 125

Tyr Ile Glu Leu Trp Glu Ser Tyr Ala Thr Glu Thr Val Arg Leu Tyr
130 135 140

Asp Ile Ala Leu Asn Gly Ile Asn Tyr Phe Asp Glu Glu Val Arg Tyr
145 150 155 160

Ile Ile Glu Leu Ala Ala Ile Ala Tyr His Glu Ile Leu Val Glu Val
165 170 175

Arg Lys Ala Asn Tyr Thr Leu His Lys Lys Val Tyr Val Ser Lys Leu
180 185 190

Lys Lys

<210> 357
<211> 24
<212> PRT
<213> Homo sapiens

<400> 357
Thr Thr Glu Phe Leu Glu Phe Ser Phe Asn Phe Leu Pro Thr Ile His
1 5 10 15

Asn Arg Thr Phe Ser Asn Gln His
20

<210> 358
<211> 24
<212> PRT
<213> Homo sapiens

<400> 358
Val Leu Arg His Leu Asn Leu Lys Gly Asn His Phe Gln Asp Gly Thr
1 5 10 15

Ile Thr Lys Thr Asn Leu Leu Gln
20

SECRET

Ile Pro Lys Ala Lys Pro Leu Thr Leu Leu Trp Ala Tyr Phe Cys Phe
20 25 30

Leu Leu Ala Ala Leu Gly Val Thr Ala Gly Ala His Arg Leu Trp Ser
35 40 45

His Arg Ser Tyr Arg Ala Lys Leu Pro Leu Arg Ile Phe Leu Ala Val
50 55 60

Ala Asn Ser Met Ala Phe Gln Asn Asp Ile Phe Glu Trp Ser Arg Asp
65 70 75 80

His Arg Ala His His Lys Tyr Ser Glu Thr Asp Ala Asp Pro His Asn
85 90 95

Ala Arg Arg Gly Phe Phe Phe Ser His Ile Gly Trp Leu Phe Val Arg
100 105 110

Lys His Arg Asp Val Ile Glu Lys Gly Arg Lys Leu Asp Val Thr Asp
115 120 125

Leu Leu Ala Asp Pro Val Val Arg Ile Gln Arg Lys Tyr Tyr Lys Ile
130 135 140

Ser Val Val Leu Met Cys Phe Val Val Pro Thr Leu Val Pro Trp Tyr
145 150 155 160

Ile Trp Gly Glu Ser Leu Trp Asn Ser Tyr Phe Leu Ala Ser Ile Leu
165 170 175

Arg Tyr Thr Ile Ser Leu Asn Ile Ser Trp Leu Val Asn Ser Ala Ala
180 185 190

His Met Tyr Gly Asn Arg Pro Tyr Asp Lys His Ile Ser Pro Arg Gln
195 200 205

Asn Pro Leu Val Ala Leu Gly Ala Ile Gly Glu Gly Phe His Asn Tyr
210 215 220

His His Thr Phe Pro Phe Asp Tyr Ser Ala Ser Glu Phe Gly Leu Asn
225 230 235 240

Phe Asn Pro Thr Thr
245

<210> 363

<211> 115

<212> PRT

<213> Homo sapiens

<400> 363

Val Cys Leu Thr Leu Ser Gly Leu Ser Lys Arg Gln Leu Gly Leu Cys
1 5 10 15

Leu Arg Asn Pro Asp Val Thr Ala Ser Ala Leu Gln Gly Leu His Ile
20 25 30

Ala Val His Glu Cys Gln His Gln Leu Arg Asp Gln Arg Trp Asn Cys
 35 40 45

Ser Ala Leu Glu Gly Gly Gly Arg Leu Pro His His Ser Ala Ile Leu
 50 55 60

Lys Arg Gly Phe Arg Glu Ser Ala Phe Ser Phe Ser Met Leu Ala Ala
 65 70 75 80

Gly Val Met His Ala Val Ala Thr Ala Cys Ser Leu Gly Lys Leu Val
 85 90 95

Ser Cys Gly Cys Gly Trp Lys Gly Ser Gly Glu Gln Asp Arg Leu Arg
 100 105 110

Ala Lys Leu
 115

<210> 364
 <211> 73
 <212> PRT
 <213> Homo sapiens

<400> 364
 Val Ser Cys Gly Cys Gly Trp Lys Gly Ser Gly Glu Gln Asp Arg Leu
 1 5 10 15

Arg Ala Lys Leu Leu Gln Leu Gln Ala Leu Ser Arg Gly Lys Ala Pro
 20 25 30

Arg Asp Ile Gln Ala Arg Met Arg Ile His Asn Asn Arg Val Gly Arg
 35 40 45

Gln Val Val Thr Glu Asn Leu Lys Arg Lys Cys Lys Cys His Gly Thr
 50 55 60

Ser Gly Ser Cys Gln Phe Lys Thr Cys
 65 70

<210> 365
 <211> 169
 <212> PRT
 <213> Homo sapiens

<400> 365
 Arg Asp Ile Gln Ala Arg Met Arg Ile His Asn Asn Arg Val Gly Arg
 1 5 10 15

Gln Val Val Thr Glu Asn Leu Lys Arg Lys Cys Lys Cys His Gly Thr
 20 25 30

Ser Gly Ser Cys Gln Phe Lys Thr Cys Trp Arg Ala Ala Pro Glu Phe
 35 40 45

Arg Ala Val Gly Ala Ala Leu Arg Glu Arg Val Gly Arg Ala Ile Phe
 50 55 60
 Ile Asp Thr His Asn Arg Asn Ser Gly Ala Phe Gln Pro Arg Leu Arg
 65 70 75 80
 Pro Arg Arg Leu Ser Gly Glu Leu Val Tyr Phe Glu Lys Ser Pro Asp
 85 90 95
 Phe Cys Glu Arg Asp Pro Thr Met Glv Ser Pro Glv Thr Arg Glv Arg
 100 105 110
 Ala Cys Asn Lys Thr Ser Arg Leu Asp Gly Cys Gly Ser Leu Cys
 115 120 125
 Cys Gly Arg Gly His Asn Val Leu Arg Gln Thr Arg Val Glu Arg Cys
 130 135 140
 His Cys Arg Phe His Trp Cys Cys Tyr Val Leu Cys Asp Glu Cys Lys
 145 150 155 160
 Val Thr Glu Trp Val Asn Val Cys Lys
 165

<210> 366
 <211> 68
 <212> PRT
 <213> Homo sapiens

<400> 366
 Gly Asp Thr Ala Val Leu Arg Cys Tyr Leu Glu Asp Gly Ala Ser Lys
 1 5 10 15
 Gly Ala Trp Leu Asn Arg Ser Ser Ile Ile Phe Ala Gly Gly Asp Lys
 20 25 30
 Trp Ser Val Asp Pro Arg Val Ser Ile Ser Thr Leu Asn Lys Arg Asp
 35 40 45
 Tyr Ser Leu Gln Ile Gln Asn Val Asp Val Thr Asp Asp Gly Pro Tyr
 50 55 60
 Thr Cys Ser Val
 65

<210> 367
 <211> 53
 <212> PRT
 <213> Homo sapiens

<400> 367
 Gly Thr Asn Val Thr Leu Thr Cys Leu Ala Thr Gly Lys Pro Glu Pro
 1 5 10 15
 Ser Ile Ser Trp Arg His Ile Ser Pro Ser Ala Lys Pro Phe Glu Asn

20 25 30
 Gly Gln Tyr Leu Asp Ile Tyr Gly Ile Thr Arg Asp Gln Ala Gly Glu
 35 40 45
 Tyr Glu Cys Ser Ala
 50

<210> 368
 <211> 62
 <212> PRT
 <213> Homo sapiens

<400> 368
 Gly Arg Ser Gly Leu Ile Arg Cys Glu Gly Ala Gly Val Pro Pro Pro
 1 5 10 15
 Ala Phe Glu Trp Tyr Lys Gly Glu Lys Lys Leu Phe Asn Gly Gln Gln
 20 25 30
 Gly Ile Ile Ile Gln Asn Phe Ser Thr Arg Ser Ile Leu Thr Val Thr
 35 40 45
 Asn Val Thr Gln Glu His Phe Gly Asn Tyr Thr Cys Val Ala
 50 55 60

<210> 369
 <211> 198
 <212> PRT
 <213> Homo sapiens

<400> 369
 Gln Pro Leu Phe Met Phe Gly Val Leu Leu Gly Ser Val Thr Phe Gly
 1 5 10 15
 Tyr Phe Ser Asp Arg Leu Gly Arg Arg Val Val Leu Trp Ala Thr Ser
 20 25 30
 Ser Ser Met Phe Leu Phe Gly Ile Ala Ala Ala Phe Ala Val Asp Tyr
 35 40 45
 Tyr Thr Phe Met Ala Ala Arg Phe Phe Leu Ala Met Val Ala Ser Gly
 50 55 60
 Tyr Leu Val Val Gly Phe Val Tyr Val Met Glu Phe Ile Gly Met Lys
 65 70 75 80
 Ser Arg Thr Trp Ala Ser Val His Leu His Ser Phe Phe Ala Val Gly
 85 90 95
 Thr Leu Leu Val Ala Leu Thr Gly Tyr Leu Val Arg Thr Trp Trp Leu
 100 105 110
 Tyr Gln Met Ile Leu Ser Thr Val Thr Val Pro Phe Ile Leu Cys Cys
 115 120 125

Trp Val Leu Pro Glu Thr Pro Phe Trp Leu Leu Ser Glu Gly Arg Tyr
130 135 140

Glu Glu Ala Gln Lys Ile Val Asp Ile Met Ala Lys Trp Asn Arg Ala
145 150 155 160

Ser Ser Cys Lys Leu Ser Glu Leu Leu Ser Leu Asp Leu Gln Gly Pro
165 170 175

Val Ser Asn Ser Pro Thr Glu Val Gln Lys His Asn Leu Ser Tyr Leu
180 185 190

Phe Tyr Asn Trp Ser Ile
195

<210> 370

<211> 95

<212> PRT

<213> Homo sapiens

<400> 370

Leu Phe Leu Leu Gly Val Val Glu Ile Pro Ala Tyr Thr Phe Val Cys
1 5 10 15

Ile Ala Met Asp Lys Val Gly Arg Arg Thr Val Leu Ala Tyr Ser Leu
20 25 30

Phe Cys Ser Ala Leu Ala Cys Gly Val Val Met Val Ile Pro Gln Lys
35 40 45

His Tyr Ile Leu Gly Val Val Thr Ala Met Val Gly Lys Phe Ala Ile
50 55 60

Gly Ala Ala Phe Gly Leu Ile Tyr Leu Tyr Thr Ala Glu Leu Tyr Pro
65 70 75 80

Thr Ile Val Arg Ser Leu Ala Val Gly Ser Gly Ser Met Val Cys
85 90 95

<210> 371

<211> 419

<212> PRT

<213> Homo sapiens

<400> 371

Lys Lys Glu Phe Pro Cys Val Asp Gly Tyr Ile Tyr Asp Gln Asn Thr
1 5 10 15

Trp Lys Ser Thr Ala Val Thr Gln Trp Asn Leu Val Cys Asp Arg Lys
20 25 30

Trp Leu Ala Met Leu Ile Gln Pro Leu Phe Met Phe Gly Val Leu Leu
35 40 45

Gly Ser Val Thr Phe Gly Tyr Phe Ser Asp Arg Leu Gly Arg Arg Val
50 55 60

Val Leu Trp Ala Thr Ser Ser Ser Met Phe Leu Phe Gly Ile Ala Ala
65 70 75 80

Ala Phe Ala Val Asp Tyr Tyr Thr Phe Met Ala Ala Arg Phe Phe Leu
85 90 95

Ala Met Val Ala Ser Glv Trp Leu Val Val Glv Phe Val Trp Val Met
100 105 110

Glu Phe Ile Gly Met Lys Ser Arg Thr Trp Ala Ser Val His Leu His
115 120 125

Ser Phe Phe Ala Val Gly Thr Leu Leu Val Ala Leu Thr Gly Tyr Leu
130 135 140

Val Arg Thr Trp Trp Leu Tyr Gln Met Ile Leu Ser Thr Val Thr Val
145 150 155 160

Pro Phe Ile Leu Cys Cys Trp Val Leu Pro Glu Thr Pro Phe Trp Leu
165 170 175

Leu Ser Glu Gly Arg Tyr Glu Glu Ala Gln Lys Ile Val Asp Ile Met
180 185 190

Ala Lys Trp Asn Arg Ala Ser Ser Cys Lys Leu Ser Glu Leu Leu Ser
195 200 205

Leu Asp Leu Gln Gly Pro Val Ser Asn Ser Pro Thr Glu Val Gln Lys
210 215 220

His Asn Leu Ser Tyr Leu Phe Tyr Asn Trp Ser Ile Thr Lys Arg Thr
225 230 235 240

Leu Thr Val Trp Leu Ile Trp Phe Thr Gly Ser Leu Gly Phe Tyr Ser
245 250 255

Phe Ser Leu Asn Ser Val Asn Leu Gly Gly Asn Glu Tyr Leu Asn Leu
260 265 270

Phe Leu Leu Gly Val Val Glu Ile Pro Ala Tyr Thr Phe Val Cys Ile
275 280 285

Ala Met Asp Lys Val Gly Arg Arg Thr Val Leu Ala Tyr Ser Leu Phe
290 295 300

Cys Ser Ala Leu Ala Cys Gly Val Val Met Val Ile Pro Gln Lys His
305 310 315 320

Tyr Ile Leu Gly Val Val Thr Ala Met Val Gly Lys Phe Ala Ile Gly
325 330 335

Ala Ala Phe Gly Leu Ile Tyr Leu Tyr Thr Ala Glu Leu Tyr Pro Thr
340 345 350

LEONARD, JAMES H. JR. b. 1941

Ala Ser Ile Leu Ala Pro Phe Ser Val Asp Leu Ser Ser Ile Trp Ile
370 375 380

Phe Ile Pro Gln Leu Phe Val Gly Thr Met Ala Leu Leu Ser Gly Val
385 390 395 400

Leu Thr Leu Lys Leu Pro Glu Thr Leu Gly Lys Arg Leu Ala Thr Thr
405 410 415

Trp Glu Glu

<210> 372

<211> 283

<212> PRT

<213> Homo sapiens

<400> 372

<400> 372
Ser Gly Lys Ala Val Leu Val Thr Gly Cys Asp Ser Gly Phe Gly Phe
1 5 10 15

Ser Leu Ala Lys His Leu His Ser Lys Gly Phe Leu Val Phe Ala Gly
20 25 30

Cys Leu Met Lys Asp Lys Gly His Asp Gly Val Lys Glu Leu Asp Ser
35 40 45

Leu Asn Ser Asp Arg Leu Arg Thr Val Gln Leu Asn Val Cys Ser Ser
50 55 60

Glu Glu Val Glu Lys Val Val Glu Ile Val Arg Ser Ser Leu Lys Asp
65 70 75 80

Pro Glu Lys Gly Met Trp Gly Leu Val Asn Asn Ala Gly Ile Ser Thr
85 90 95

Phe Gly Glu Val Glu Phe Thr Ser Leu Glu Thr Tyr Lys Gln Val Ala
100 105 110

Glu Val Asn Leu Trp Gly Thr Val Arg Met Thr Lys Ser Phe Leu Pro
115 120 125

Leu Ile Arg Arg Ala Lys Gly Arg Val Val Asn Ile Ser Ser Met Leu
130 135 140

Gly Arg Met Ala Asn Pro Ala Arg Ser Pro Tyr Cys Ile Thr Lys Phe
145 150 155 160

Gly Val Glu Ala Phe Ser Asp Cys Leu Arg Tyr Glu Met Tyr Pro Leu
165 170 175

Gly Val Lys Val Ser Val Val Glu Pro Gly Asn Phe Ile Ala Ala Thr
180 185 190

Ser Leu Tyr Ser Pro Glu Ser Ile Gln Ala Ile Ala Lys Lys Met Trp
 195 200 205

Glu Glu Leu Pro Glu Val Val Arg Lys Asp Tyr Gly Lys Lys Tyr Phe
 210 215 220

Asp Glu Lys Ile Ala Lys Met Glu Thr Tyr Cys Ser Ser Gly Ser Thr
 225 230 235 240

Asp Thr Ser Pro Val Ile Asp Ala Val Thr His Ala Leu Thr Ala Thr
 245 250 255

Thr Pro Tyr Thr Arg Tyr His Pro Met Asp Tyr Tyr Trp Trp Leu Arg
 260 265 270

Met Gln Ile Met Thr His Leu Pro Gly Ala Ile
 275 280

<210> 373

<211> 27

<212> PRT

<213> Homo sapiens

<400> 373

Cys Pro Arg Asn Cys His Gly Asn Gly Glu Cys Val Ser Gly Thr Cys
 1 5 10 15

His Cys Phe Pro Gly Phe Leu Gly Pro Asp Cys
 20 25

<210> 374

<211> 28

<212> PRT

<213> Homo sapiens

<400> 374

Cys Ile Asp Pro Gln Cys Gly Gly Arg Gly Ile Cys Ile Met Gly Ser
 1 5 10 15

Cys Ala Cys Ser Ser Gly Tyr Lys Gly Glu Ser Cys
 20 25

<210> 375

<211> 28

<212> PRT

<213> Homo sapiens

<400> 375

Cys Ile Asp Pro Gly Cys Ser Asn His Gly Val Cys Ile His Gly Glu
 1 5 10 15

Cys His Cys Ser Pro Gly Trp Gly Gly Ser Asn Cys
 20 25

<210> 376
 <211> 49
 <212> PRT
 <213> Homo sapiens

<400> 376
 Cys Ser Ser Gly Tyr Lys Gly Glu Ser Cys Glu Glu Ala Asp Cys Ile
 1 5 10 15
 Asp Pro Gly Cys Ser Asn His Gly Val Cys Ile His Gly Glu Cys His
 20 25 30
 Cys Ser Pro Gly Trp Gly Gly Ser Asn Cys Glu Ile Leu Lys Thr Met
 35 40 45
 Cys

<210> 377
 <211> 29
 <212> PRT
 <213> Homo sapiens

<400> 377
 Cys Pro Asp Gln Cys Ser Gly His Gly Thr Tyr Leu Gln Glu Ser Gly
 1 5 10 15
 Ser Cys Thr Cys Asp Pro Asn Trp Thr Gly Pro Asp Cys
 20 25

<210> 378
 <211> 27
 <212> PRT
 <213> Homo sapiens

<400> 378
 Cys Ser Val Asp Cys Gly Ser His Gly Val Cys Met Gly Gly Thr Cys
 1 5 10 15
 Arg Cys Glu Glu Gly Trp Thr Gly Pro Ala Cys
 20 25

<210> 379
 <211> 27
 <212> PRT
 <213> Homo sapiens

<400> 379
 Cys His Pro Arg Cys Ala Glu His Gly Thr Cys Lys Asp Gly Lys Cys
 1 5 10 15
 Glu Cys Ser Gln Gly Trp Asn Gly Glu His Cys

20

25

<210> 380

<211> 31

<212> PRT

<213> Homo sapiens

<400> 380

Cys Pro Gly Leu Cys Asn Ser Asn Glv Arg Cys Thr Leu Asp Gln Asn
1 5 10 15

Gly Gly His Cys Val Cys Gln Pro Gly Trp Arg Gly Ala Gly Cys
20 25 30

<210> 381

<211> 18

<212> PRT

<213> Homo sapiens

<400> 381

Phe Pro Ser Gly Asn Val Thr Ser Val Leu Glu Leu Arg Asn Lys Asp
1 5 10 15

Phe Arg

<210> 382

<211> 28

<212> PRT

<213> Homo sapiens

<400> 382

Leu Glu Trp Pro Thr Asp Leu Ala Ile Asn Pro Met Asp Asn Ser Ile
1 5 10 15

Tyr Val Leu Asp Asn Asn Val Val Leu Gln Ile Thr
20 25

<210> 383

<211> 28

<212> PRT

<213> Homo sapiens

<400> 383

Leu Ser Ala Pro Ser Ser Leu Ala Ala Ser Pro Asp Gly Thr Leu Tyr
1 5 10 15

Ile Ala Asp Leu Gly Asn Ile Arg Ile Arg Ala Val
20 25

<210> 384

<211> 26

[illegible]

1 5 10 15

Ser Cys Thr Cys Asp Pro Asn Trp Thr Gly Pro Asp Cys
20 25

<210> 389
<211> 27
<212> PRT
<213> Homo sapiens

<400> 389
Cys Ser Val Asp Cys Gly Ser His Gly Val Cys Met Gly Gly Thr Cys
1 5 10 15

Arg Cys Glu Glu Gly Trp Thr Gly Pro Thr Cys
20 25

<210> 390
<211> 27
<212> PRT
<213> Homo sapiens

<400> 390
Cys His Pro Arg Cys Ala Glu His Gly Thr Cys Lys Asp Gly Lys Cys
1 5 10 15

Glu Cys Ser His Gly Trp Asn Gly Glu His Cys
20 25

<210> 391
<211> 31
<212> PRT
<213> Homo sapiens

<400> 391
Cys Pro Gly Leu Cys Asn Ser Asn Gly Arg Cys Thr Leu Asp Gln Asn
1 5 10 15

Gly Trp His Cys Val Cys Gln Pro Gly Trp Arg Gly Ala Gly Cys
20 25 30

<210> 392
<211> 18
<212> PRT
<213> Homo sapiens

<400> 392
Phe Pro Ser Gly Asn Val Thr Ser Val Leu Glu Leu Arg Asn Lys Asp
1 5 10 15

Phe Arg

<210> 393
 <211> 28
 <212> PRT
 <213> Homo sapiens

<400> 393
 Leu Glu Trp Pro Thr Asp Leu Ala Ile Asn Pro Met Asp Asn Ser Ile
 1 5 10 15
 Tyr Val Leu Asp Asn Asn Val Val Leu Gln Ile Thr
 20 25

<210> 394
 <211> 28
 <212> PRT
 <213> Homo sapiens

<400> 394
 Leu Ser Ala Pro Ser Ser Leu Ala Ala Ser Pro Asp Gly Thr Leu Tyr
 1 5 10 15
 Ile Ala Asp Leu Gly Asn Ile Arg Ile Arg Ala Val
 20 25

<210> 395
 <211> 26
 <212> PRT
 <213> Homo sapiens

<400> 395
 Val Asn Val Thr Tyr Ser Ser Thr Gly Gln Ile Ala Ser Ile Gln Arg
 1 5 10 15
 Gly Thr Thr Ser Glu Lys Val Asp Tyr Asp
 20 25

<210> 396
 <211> 17
 <212> PRT
 <213> Homo sapiens

<400> 396
 Ala Ile Asp Ala Gly Tyr Arg His Phe Asp Cys Ala Tyr Phe Tyr His
 1 5 10 15
 Asn

<210> 397
 <211> 12
 <212> PRT
 <213> Homo sapiens

<400> 397

Pro Val Ile Lys Arg Ile Ala Lys Glu His Gly Lys
 1 5 10

<210> 398

<211> 279

<212> PRT

<213> Homo sapiens

<400> 398

Ile Pro Ala Val Gly Leu Ser Ser Trp Lys Gln Ala Ser Pro Gly Lys
 1 5 10 15

Val Thr Glu Ala Val Lys Glu Ala Ile Asp Ala Gly Tyr Arg His Phe
 20 25 30

Asp Cys Ala Tyr Phe Tyr His Asn Glu Arg Glu Val Gly Ala Gly Ile
 35 40 45

Arg Cys Lys Ile Lys Glu Gly Ala Val Arg Arg Glu Asp Leu Phe Ile
 50 55 60

Ala Thr Lys Leu Trp Cys Thr Cys His Lys Lys Ser Leu Val Glu Thr
 65 70 75 80

Ala Cys Arg Lys Ser Leu Lys Ala Leu Lys Leu Asn Tyr Leu Asp Leu
 85 90 95

Tyr Leu Ile His Trp Pro Met Gly Phe Lys Pro Arg Val Gln Asp Leu
 100 105 110

Pro Leu Asp Glu Ser Asn Met Val Ile Pro Ser Asp Thr Asp Phe Leu
 115 120 125

Asp Thr Trp Glu Ala Met Glu Asp Leu Val Ile Thr Gly Leu Val Lys
 130 135 140

Asn Ile Gly Val Ser Asn Phe Asn His Glu Gln Leu Glu Arg Leu Leu
 145 150 155 160

Asn Lys Pro Gly Leu Arg Phe Lys Pro Leu Thr Asn Gln Ile Glu Cys
 165 170 175

His Pro Tyr Leu Thr Gln Lys Asn Leu Ile Ser Phe Cys Gln Ser Arg
 180 185 190

Asp Val Ser Val Thr Ala Tyr Arg Pro Leu Gly Gly Ser Ser Glu Gly
 195 200 205

Val Asp Leu Ile Asp Asn Pro Val Ile Lys Arg Ile Ala Lys Glu His
 210 215 220

Gly Lys Ser Pro Ala Gln Ile Leu Ile Arg Phe Gln Ile Gln Arg Asn
 225 230 235 240

Val Ile Val Ile Pro Gly Ser Ile Thr Pro Ser His Ile Lys Glu Asn
245 250 255

Ile Gln Val Phe Asp Phe Glu Leu Thr Gln His Asp Met Asp Asn Ile
260 265 270

Leu Ser Leu Asn Arg Asn Leu
275

<210> 399
<211> 17
<212> PRT
<213> Homo sapiens

<400> 399
Ala Ile Asp Ala Gly Tyr Arg His Phe Asp Cys Ala Tyr Phe Tyr His
1 5 10 15

Asn

<210> 400
<211> 107
<212> PRT
<213> Homo sapiens

<400> 400
Ile Pro Ala Val Gly Leu Ser Ser Trp Lys Gln Ala Ser Pro Gly Lys
1 5 10 15

Val Thr Glu Ala Val Lys Glu Ala Ile Asp Ala Gly Tyr Arg His Phe
20 25 30

Asp Cys Ala Tyr Phe Tyr His Asn Glu Arg Glu Val Gly Ala Gly Ile
35 40 45

Arg Cys Lys Ile Lys Glu Gly Ala Val Arg Arg Glu Asp Leu Phe Ile
50 55 60

Ala Thr Lys Leu Trp Cys Thr Cys His Lys Lys Ser Leu Val Glu Thr
65 70 75 80

Ala Cys Arg Lys Gly Leu Lys Ala Leu Lys Leu Asn Tyr Leu Asp Leu
85 90 95

Tyr Leu Ile His Trp Pro Met Gly Phe Lys Pro
100 105

<210> 401
<211> 62
<212> PRT
<213> Homo sapiens

<400> 401

Pro Leu Asp Glu Ser Asn Met Val Ile Pro Ser Asp Thr Asp Phe Leu
 1 5 10 15
 Asp Thr Trp Glu Ala Met Glu Asp Leu Val Ile Thr Gly Leu Val Lys
 20 25 30
 Asn Ile Gly Val Ser Asn Phe Asn His Glu Gln Leu Glu Arg Leu Leu
 35 40 45
 Asn Lys Pro Gly Leu Arg Phe Lys Pro Leu Thr Asn Gln Ile
 50 55 60

<210> 402
 <211> 48
 <212> PRT
 <213> Homo sapiens

<400> 402
 Leu Ile Arg Phe Gln Ile Gln Arg Asn Val Ile Val Ile Pro Gly Ser
 1 5 10 15
 Ile Thr Pro Ser His Ile Lys Glu Asn Ile Gln Val Phe Asp Phe Glu
 20 25 30
 Leu Thr Gln His Asp Met Asp Asn Ile Leu Ser Leu Asn Arg Asn Leu
 35 40 45

<210> 403
 <211> 93
 <212> PRT
 <213> Homo sapiens

<400> 403
 Leu Ala Thr Val Tyr Val Asp Val Leu Lys Asp Ser Val Thr Ser Thr
 1 5 10 15
 Phe Ser Lys Leu Arg Glu Gln Leu Gly Pro Val Thr Gln Glu Phe Trp
 20 25 30
 Asp Asn Leu Glu Lys Glu Thr Glu Gly Leu Arg Gln Glu Met Ser Lys
 35 40 45
 Asp Leu Glu Glu Val Lys Ala Lys Val Gln Pro Tyr Leu Asp Asp Phe
 50 55 60
 Gln Lys Lys Trp Gln Glu Glu Met Glu Leu Tyr Arg Gln Lys Val Glu
 65 70 75 80
 Pro Leu Arg Ala Glu Leu Gln Glu Gly Ala Arg Gln Lys
 85 90

<210> 404
 <211> 237
 <212> PRT
 <213> Homo sapiens

<400> 404
 Lys Ala Ala Val Leu Thr Leu Ala Val Leu Phe Leu Thr Gly Ser Gln
 1 5 10 15
 Ala Arg His Phe Trp Gln Gln Asp Glu Pro Pro Gln Ser Pro Trp Asp
 20 25 30
 Arg Val Lys Asp Leu Ala Thr Val Tyr Val Asp Val Leu Lys Asp Ser
 35 40 45
 Val Thr Ser Thr Phe Ser Lys Leu Arg Glu Gln Leu Gly Pro Val Thr
 50 55 60
 Gln Glu Phe Trp Asp Asn Leu Glu Lys Glu Thr Glu Gly Leu Arg Gln
 65 70 75 80
 Glu Met Ser Lys Asp Leu Glu Glu Val Lys Ala Lys Val Gln Pro Tyr
 85 90 95
 Leu Asp Asp Phe Gln Lys Lys Trp Gln Glu Glu Met Glu Leu Tyr Arg
 100 105 110
 Gln Lys Val Glu Pro Leu Arg Ala Glu Leu Gln Glu Gly Ala Arg Gln
 115 120 125
 Lys Leu His Glu Leu Gln Glu Lys Leu Ser Pro Leu Gly Glu Glu Met
 130 135 140
 Arg Asp Arg Ala Arg Ala His Val Asp Ala Leu Arg Thr His Leu Ala
 145 150 155 160
 Pro Tyr Ser Asp Glu Leu Arg Gln Arg Leu Ala Ala Arg Leu Glu Ala
 165 170 175
 Leu Lys Glu Asn Gly Gly Ala Arg Leu Ala Glu Tyr His Ala Lys Ala
 180 185 190
 Thr Glu His Leu Ser Thr Leu Ser Glu Lys Ala Lys Pro Ala Leu Glu
 195 200 205
 Asp Leu Arg Gln Gly Leu Leu Pro Val Leu Glu Ser Phe Lys Val Ser
 210 215 220
 Phe Leu Ser Ala Leu Glu Glu Tyr Thr Lys Lys Leu Asn
 225 230 235

<210> 405
 <211> 93
 <212> PRT
 <213> Homo sapiens

11-11-61

<400> 405

Leu Ala Thr Val Tyr Val Asp Val Leu Lys Asp Ser Val Thr Ser Thr
1 5 10 15

Phe Ser Lys Leu Arg Glu Gln Leu Gly Pro Val Thr Gln Glu Phe Trp
20 25 30

Asp Asn Leu Glu Lys Glu Thr Glu Gly Leu Arg Gln Glu Met Ser Lys
35 40 45

Asp Leu Glu Glu Val Lys Ala Lys Val Gln Pro Tyr Leu Asp Asp Phe
50 55 60

Gln Lys Lys Trp Gln Glu Glu Met Glu Leu Tyr Arg Gln Lys Val Glu
65 70 75 80

Pro Leu Arg Ala Glu Leu Gln Glu Gly Ala Arg Gln Lys
85 90

<210> 406

<211> 204

<212> PRT

<213> Homo sapiens

<400> 406

Lys Ala Ala Val Leu Thr Leu Ala Val Leu Phe Leu Thr Gly Ser Gln
1 5 10 15

Ala Arg His Phe Trp Gln Gln Asp Glu Pro Pro Gln Ser Pro Trp Asp
20 25 30

Arg Val Lys Asp Leu Ala Thr Val Tyr Val Asp Val Leu Lys Asp Ser
35 40 45

Val Thr Ser Thr Phe Ser Lys Leu Arg Glu Gln Leu Gly Pro Val Thr
50 55 60

Gln Glu Phe Trp Asp Asn Leu Glu Lys Glu Thr Glu Gly Leu Arg Gln
65 70 75 80

Glu Met Ser Lys Asp Leu Glu Glu Val Lys Ala Lys Val Gln Pro Tyr
85 90 95

Leu Asp Asp Phe Gln Lys Lys Trp Gln Glu Glu Met Glu Leu Tyr Arg
100 105 110

Gln Lys Val Glu Pro Leu Arg Ala Glu Leu Gln Glu Gly Ala Arg Gln
115 120 125

Lys Leu His Glu Leu Arg Gln Arg Leu Ala Glu Arg Leu Glu Ala Leu
130 135 140

Lys Glu Asn Gly Gly Ala Arg Leu Ala Glu Tyr His Ala Lys Ala Thr
145 150 155 160

Glu His Leu Ser Thr Leu Ser Glu Lys Ala Lys Pro Ala Leu Glu Asp

165

170

175

Leu Arg Gln Gly Leu Leu Pro Val Leu Glu Ser Phe Lys Val Ser Phe
 180 185 190

Leu Ser Ala Leu Glu Glu Tyr Thr Lys Lys Leu Asn
 195 200

<210> 407

<211> 70

<212> PRT

<213> Homo sapiens

<400> 407

His Ser Ser Val Gly Ala Lys Asp Leu Val Cys Ser Lys Met Ser Arg
 1 5 10 15

Ala Lys Asp Ala Val Ser Ser Gly Val Ala Ser Val Val Asp Val Ala
 20 25 30

Lys Gly Val Val Gln Gly Gly Leu Asp Thr Thr Arg Ser Ala Leu Thr
 35 40 45

Gly Thr Lys Glu Val Val Ser Ser Gly Val Thr Gly Ala Met Asp Met
 50 55 60

Ala Lys Gly Ala Val Gln
 65 70

<210> 408

<211> 74

<212> PRT

<213> Homo sapiens

<400> 408

Asn Val Ala Lys Gly Thr Ile Gln Thr Gly Val Asp Thr Thr Lys Thr
 1 5 10 15

Val Leu Thr Gly Thr Lys Asn Thr Val Cys Ser Gly Val Thr Gly Ala
 20 25 30

Val Asn Leu Ala Lys Glu Ala Ile Gln Gly Gly Leu Asp Thr Thr Lys
 35 40 45

Ser Met Val Met Gly Thr Lys Asp Thr Met Ser Thr Gly Leu Thr Gly
 50 55 60

Ala Ala Asn Val Ala Lys Gly Ala Met Gln
 65 70

<210> 409

<211> 74

<212> PRT

<213> Homo sapiens

<400> 409

Gly Thr Val Gln Thr Gly Val Asp Thr Thr Lys Thr Val Leu Thr Gly
 1 5 10 15
 Thr Lys Asp Thr Val Cys Ser Gly Val Thr Ser Ala Val Asn Val Ala
 20 25 30
 Lys Gly Ala Val Gln Gly Gly Leu Asp Thr Thr Lys Ser Val Val Ile
 35 40 45
 Gly Thr Lys Asp Thr Met Ser Thr Gly Leu Thr Gly Ala Ala Asn Val
 50 55 60
 Ala Lys Gly Ala Val Gln Thr Gly Val Asp
 65 70

<210> 410

<211> 92

<212> PRT

<213> Homo sapiens

<400> 410

Gly Ala Val Gln Met Gly Val Asp Thr Ala Lys Thr Val Leu Thr Gly
 1 5 10 15
 Thr Lys Asp Thr Val Cys Ser Gly Val Thr Gly Ala Ala Asn Val Ala
 20 25 30
 Lys Gly Ala Val Gln Thr Gly Leu Lys Thr Thr Gln Asn Ile Ala Thr
 35 40 45
 Gly Thr Lys Asn Thr Leu Gly Ser Gly Val Thr Gly Ala Ala Lys Val
 50 55 60
 Ala Lys Gly Ala Val Gln Gly Gly Leu Asp Thr Thr Lys Ser Val Leu
 65 70 75 80
 Thr Gly Thr Lys Asp Ala Val Ser Thr Gly Leu Thr
 85 90

<210> 411

<211> 366

<212> PRT

<213> Homo sapiens

<400> 411

Leu Asp Thr Thr Lys Ser Val Leu Thr Gly Thr Lys Asp Ala Val Ser
 1 5 10 15
 Thr Gly Leu Thr Gly Ala Val Asn Leu Ala Lys Gly Thr Val Gln Thr
 20 25 30
 Gly Val Asp Thr Ser Lys Thr Val Leu Thr Gly Thr Lys Asp Thr Val
 35 40 45

Cys Ser Gly Val Thr Gly Ala Val Asn Val Ala Lys Gly Thr Val Gln
 50 55 60
 Thr Gly Val Asp Thr Ala Lys Thr Val Leu Ser Gly Ala Lys Asp Ala
 65 70 75 80
 Val Thr Thr Gly Val Thr Gly Ala Val Asn Val Ala Lys Gly Thr Val
 85 90 95
 Gln Thr Gly Val Asp Ala Ser Lys Ala Val Leu Met Gly Thr Lys Asp
 100 105 110
 Thr Val Phe Ser Gly Val Thr Gly Ala Met Ser Met Ala Lys Gly Ala
 115 120 125
 Val Gln Gly Gly Leu Asp Thr Thr Lys Thr Val Leu Thr Gly Thr Lys
 130 135 140
 Asp Ala Val Ser Ala Gly Leu Met Gly Ser Gly Asn Val Ala Thr Gly
 145 150 155 160
 Ala Thr His Thr Gly Leu Ser Thr Phe Gln Asn Trp Leu Pro Ser Thr
 165 170 175
 Pro Ala Thr Ser Trp Gly Gly Leu Thr Ser Ser Arg Thr Thr Ala Gln
 180 185 190
 Leu Ala Ala Ser Gln Pro Gly Pro Lys Val Leu Ser Ala Glu Gln Gly
 195 200 205
 Ser Tyr Phe Val Arg Leu Gly Asp Leu Gly Pro Ser Phe Arg Gln Arg
 210 215 220
 Ala Phe Glu His Ala Val Ser His Leu Gln His Gly Gln Phe Gln Ala
 225 230 235 240
 Arg Asp Thr Leu Ala Gln Leu Gln Asp Cys Phe Arg Leu Ile Glu Lys
 245 250 255
 Ala Gln Gln Ala Pro Glu Gly Gln Pro Arg Leu Asp Gln Gly Ser Gly
 260 265 270
 Ala Ser Ala Glu Asp Ala Ala Val Gln Glu Arg Val Cys Gly Leu Leu
 275 280 285
 Arg Gln Leu His Thr Ala Tyr Ser Gly Leu Val Ser Ser Leu Gln Gly
 290 295 300
 Leu Pro Ala Glu Leu Gln Gln Pro Val Gly Arg Ala Arg His Ser Leu
 305 310 315 320
 Cys Glu Leu Tyr Gly Ile Val Ala Ser Ala Gly Ser Val Glu Glu Leu
 325 330 335
 Pro Ala Glu Arg Leu Val Gln Ser Arg Glu Gly Val His Gln Ala Trp
 340 345 350

Gln Gly Leu Glu Gln Leu Leu Glu Gly Leu Gln His Asn Pro
355 360 365